

INTEGRATING CONTEMPLATIVE PRACTICE INTO THE UNDERGRADUATE
PURSUIT OF FINDING AND FOLLOWING AN INTUITIVE CALL

A DISSERTATION

submitted by

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In partial fulfillment of the requirements
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Abstract

The purpose of this study was to investigate the integration of contemplative practice into higher education. The intention of such integration would be to facilitate a students' ability to hear and follow an intuitive *call*. Intuition was defined as an immediate, unmediated or tacit way of knowing; *calls* or *callings* as inner directives towards meaningful life pursuits. Intuition and *calls* were seen as overlapping and interchangeable terms. (When referring to intuitive *calls*, *calls* will be italicized throughout.)

The literature review for this study explored relevant trends in higher education. One trend involves academic shifts towards professional readiness, or marketable skills, away from personal quests (such as following a *call*). Paradoxically, another trend suggests that undergraduates, across all majors and disciplines, are specifically searching for ways to incorporate personal quests into the college experience.

Heuristic research, a phenomenological approach, was applied to the experience of intuitive *calls*. The study reviewed over 300 emails and letters related to *calls*; interviews with an undergraduate about her experience with contemplative practice and of intuitive *calls*; that student's journals; and finally phone interviews and face to face meetings with Gregg Levoy, author of *Callings: Finding and Following an Authentic Life*. In addition to the phenomenological study, a case study surfaced during data review.

The results of the investigation on contemplative practice, intuitive *calls*, and higher education revealed two newly identified variables. The first variable involved students' developmental readiness to follow an intuitive *call*; the second addressed the role of tension or a disorienting dilemma in the motivation to follow an intuitive *call*.

Also included are discussions regarding ways in which brain activity bridges contemplative practice, intuitive *calls*, and disorienting dilemmas. This study, and supporting literature, suggests that contemplative practice (which has been shown to impact brain activity), along with developmental readiness and the presence of a disorienting dilemma facilitate a student's ability to hear and follow an intuitive *call*.

Keywords: *Calls*, Contemplative Practice, Developmental Readiness, Disorienting Dilemma, Heuristic Research, Intuition, Tacit Knowing, Undergraduates

Introduction

I was one hundred miles away from any road or path traveling down the Amazon River in Ecuador. As co-leader and one of the faculty members of a study away adventure with twenty college students I was seated in the first of several hallowed out trees which served as canoes taking us away from our base camp, to our individual family home stays. I would spend the night with a family whose community members used to be known as the head-hunters of the Amazon. It's the middle of the night, and because I was considered a guest, always an honor in this community, the father of the family placed palm leaves on the ground for my bed. The air was filled with the sounds of bats flying, dogs chewing on chicken bones, wild pigs rustling in the bushes, and a gentle rain shower adding a constant melody to it all. In spite of the sounds both inside and outside the hut (inside and outside my head), exhausted from days of hiking and exploring, within moments I fell deeply asleep. Suddenly, I awoke to a sharp sting on my left foot. The pain was considerable and my left leg went numb. However, in that moment from some inner sense or way of knowing I knew everything would be fine. I didn't speak Shuar, the native language, but in the morning the father, who happened to be the son of a shaman, communicated that the sting was from a scorpion, and I was not in any real danger. I trusted my inner guidance, and the wisdom in the face of this man. After spending the day gardening and remaining present to the beauty of the jungle, I was taken by canoe (navigated by an eight-year-old boy) to the group's base camp where another shaman looked at the spot where I was stung. He sucked the poison out of my foot, smiled, and walked into the jungle to retrieve a leaf. He chewed the leaf, smiled again, and applied the salve from the leaf to my foot.

I begin with this story because I experience much of life, including how I learn, through the lens of what might be called my intuitive, imaginative, or an inner way of knowing. My interest in pursuing a doctorate also relates to the telling of this story.

In spring 2005, I asked undergraduate students in my class, *A Holistic Approach to Healing*, to complete a personal holistic assessment questionnaire. The assessment asks students to evaluate their emotional, physical, spiritual, mental, and environmental wellness. It also asks how satisfied they feel in their current life situation. Only three out of thirty-three students responded that they felt personally connected or grounded in their college experience. The other thirty students wanted to talk about feeling unsettled – which we did.

Then, I told my students the story of my adventure in Ecuador, to capture their interest and generate discussion about the possibilities of healing from different cultural perspectives. As I told the scorpion story, I opened a passageway for some students to reveal that they experience the world, including learning, through ways of knowing that they do not always feel able, or encouraged, to discuss. They described ways of knowing similar to what I described as the inner guidance I experienced in Ecuador.

This does not necessarily mean those experiencing such inner ways of knowing are more intuitive. However, based on a theory by early twentieth century psychiatrist, Carl Jung, those that strongly experience such inner ways of knowing, may experience situations first, and primarily, through a noncognitive lens. Such noncognitive lenses include sensing, intuiting, or feeling. The class discussion that followed was about the relief students felt in being able to acknowledge, and have respected, unique ways of knowing.

I grew up believing that learning was about memorizing, about how well you could use your logical, rational brain, and about how well you could manipulate the system. My grades in school were very good, but I was haunted by the fact that I learned most productively and with a greater sense of satisfaction when I allowed other parts of myself to be engaged in the process of learning. I gave up talking with adults (such as the nuns whose classes I sat in for nine years) about it because when I did, I was labeled eccentric, artsy, new age – none of which felt very positive. And so at an early age I quickly learned to keep quiet and adapt to the system. As a result, I felt alienated from what I perceived as the normal way of being and learning.

When I was an undergraduate this quiet adaptation of my inner voice, gently but powerfully surfaced. On a beautiful fall day, as I was standing outside one of the many brick buildings at Keene State College, in 1981, I was struck by a sense, an inner pull, to major in psychology. I went directly to my advisors office. I was excited to have settled on a major that felt perfect for me. His response was “What will you do with that?” All the old messages reinforcing my unique way of processing and making decisions came flooding back. I saw my advisor as more of an authority on my life than my internal authority. I declared my major, nutrition, and once again buried my inner voice.

I received an undergraduate and master’s degree in human services and nutrition. I entered the workforce. Throughout my first career in healthcare I was met with continued resistance to my unique world view, to questions about treating the whole person instead of the illness (this was the 1980s and the wellness movement was just starting to emerge). I was labeled a “hippie”. My contributions were respected as long as I played within the conservative western approach to healthcare and didn’t challenge those views. At the time,

the views of many in the western medical establishment included believing that the body is separate from the mind, separate from the spirit, and separate from emotions. I could not work within that philosophical model. It was at that point that I decided to pursue a second graduate degree in transpersonal psychology.

Transpersonal Psychology and Intuitive *Calls*

Many experiences fall under the umbrella term “transpersonal”. In general, a transpersonal experience might be an event in which there is a connection, or sensation, not bound by physical (sensing), cognitive (thinking) or emotional (feeling) experiences. A transpersonal experience might be a connection to something greater than, or outside of, the personal self – “trans” meaning beyond, and “persona” from Jung, referring to the masks or “persona” we wear – in other words, beyond the personal. My initial doctoral areas of interest involved two transpersonal experiences – contemplative practices (such as meditation) and intuition. I was interested in how these experiences impacted the quality and outcome of learning for undergraduates. My hypothesis being that contemplative practices allow us to go beyond the senses, to connect to our inner nature, or intuitive way of knowing. This connection may then allow greater access and encouragement to follow a path that matters, that path being a true passion or *calling*.

The terms *calls* or *callings* will be italicized to distinguish them from other uses. *Calls* are personal, inner ways of knowing or directives to move in a specific direction in life, usually, but not always, associated with a career or vocation. “A *call* is only a monologue. A return *call*, a response, creates a dialogue...and in Latin there is even a correspondence between the words for listening and following” (Levoy, 1997, p. 2). I am particularly

interested in coupling the phenomenon of a *call* with the experience of undergraduate life. I relied on *Callings: Finding and Following and Authentic Life* by Gregg Levoy to lead me on a *callings* exploration. Passages from the book are embedded throughout this dissertation.

My research question addresses whether or not there are ways in which undergraduate students have transpersonal experiences such as intuitive ways of knowing. Can these students bridge head and heart? Can they bridge intellect and other ways of knowing? If so, does the experience involve a *calling*? Can engaging in contemplative practice help bring *calls* to the surface? Are there ways to help students discuss tacit ways of knowing as described by Polanyi (1966) as knowing without knowing how we know? The terms tacit knowing and intuition are used interchangeably. They share orienting generalizations those “broad, general themes [that] emerge, about which there is actually very little disagreement” (Wilber, 2007, p. 23-24). The definition of tacit knowing includes the quality of immediate, unmediated knowledge or unconscious way of perceiving/knowing used to describe intuition (deLaszo, 1990; Birgerstam, 2002; Jung, 1971; Osho, 2001; Polanyi, 1966; Schulz, 1998).

My initial bias was that all undergraduate students had personal *calls* ready to be heard and followed if allowed to surface, and that one way to allow such *calls* to surface is through contemplative practice. This bias shifted the more I explored the data. Other assumptions and beliefs about higher education, intuition, and *callings* that I held prior to analyzing data included: that in general higher education lacked a holistic focus; that intuition is a natural human emotion or sense; that *callings* are connected to intuition; that contemplative practices can influence access to intuition and therefore *calls*; and that contemplative practices influence brain activity associated with intuition and therefore *calls*.

My literature review examines paradoxical trends in higher education – the shift towards undergraduate curriculum focused on marketable skills, and the concurrent desire for students to explore issues related to spirituality, passion, and *callings*. In the background section I examine the ways in which brain activity is related to contemplative practices and intuition. My work is supported by the current findings in brain studies on contemplative practice, intuition, and how these may impact *callings*.

Background

My research question is grounded in the field of holistic education and the research on ways in which contemplative practices and intuition influence brain activity.

Holistic Education. Holistic education is defined in many ways. It can include a spiritual dimension, it can revolve around religious doctrine, it might incorporate contemplative practice, art, or other modes of expression into the curriculum, it could focus on self-awareness, or it might combine any of these. The following fully captures the definition of holistic education:

Holistic education seeks to develop growth in the intellectual, creative, spiritual, social, physical and emotional potentials of the learner. It aims to create an understanding of various contexts and perspectives which shape human experience, and to promote critical thinking. To achieve this, it emphasizes interconnections, integration between theory, practice, and empowerment of the learner, and addresses different ways of knowing and discovering the world we live in. (*Defining holistic education*, n.d.)

Ron Miller (1995) offers an explanation of the value of holistic education:

Just about every human civilization, with the exception of the Western materialist worldview, has recognized that the unfolding of the cosmos, both within and beyond direct human experience, is far deeper and more mysterious than is revealed by its surface appearances. The emphasis in Western education on intellect is not, as we are led to believe, the crowning pinnacle of human wisdom but a cultural prejudice. The assertion that other ways of knowing are “anti-intellectual” is an attempt to protect

the materialist worldview from the deeper insights that are possible from a more spiritual point of view..."Intellect", as it has come to be defined and applied in our culture, is one-dimensional and limited, oriented to manipulation rather than insight; and a social order based upon it often rewards those people who are most ruthless in its application. (p. 65)

Holistic education means examining and moving beyond this "one-dimensional", "limited", and "manipulative" learning style in education. This is what I believe students are asking for. But many students are distracted from an inner voice, at the same time wanting to explore it.

In asking questions about listening to an inner voice, it is essential to acknowledge the increasing numbers of students (and others) being labeled with attention problems or disorders. Is this trend due in part to the alarming amount of outside stimulus that we take in? In *Data Smog* the author writes that "In 1971 the average American was targeted by at least 560 daily advertising messages. Twenty years later, that number had risen six fold, to 300 messages per day" (Shenk, 1997, p. 30); and it has been estimated that one weekday edition of *The New York Times* contains more information than a person in the seventeenth century would have experienced in a lifetime. As Shenk further states:

When it comes to information, it turns out that one can have too much of a good thing. At a certain level of input, the law of diminishing returns takes effect; the glut of information no longer adds to our quality of life, but instead begins to cultivate stress, confusion, and even ignorance. Information overload threatens our ability to educate ourselves, and leaves us vulnerable as consumers and less cohesive as a society. (p. 15)

An antidote to this level of distraction is needed. Developing a contemplative practice might be one remedy. Meditation has been found to lead to physiological coherence. Physiological coherence happens when various body systems come into balance leading to a reduction in stress and enhanced attention and cognitive ability (Hart, 2004). Physiological coherence might also strengthen our connection with intuition, our inner attentive nature. Decreasing stress, increasing attention, and engaging one's inner nature might result in more meaningful learning along with more satisfying classroom experiences for educators and students alike. As discussed in the analysis chapter, however, even if we reduce information overload, our inner voice, or inner authority, is often silenced or marginalized by external authorities such as family, peers, teachers, or the sociocultural environment.

Jung theorized that each of us primarily experiences life by thinking, intuiting, feeling, or sensing. If this is true, then what happens when pedagogy ignores three-fourths of our ways of knowing? Not only is learning stifled, but the resulting anxiety and frustration might lead to some of the challenges currently seen in higher education today. These challenges include increasing dropout rates, increases in psychological and physical problems, and issues related to attention. Although this may not be the primary factor in such situations, ignoring diverse ways of knowing might be a contributing factor worth investigating.

As one of the keynote speakers for the Early Childhood Education Conference, Framingham, MA, December 2006, I was reminded that the time has come for a holistic approach to education. The theme of the Conference was "Reaching Hearts and Minds." When I asked participants to point to where the mind is located, almost everyone in the room

pointed to his or her head. In other cultures, when asked this same question, people usually point to their hearts. In other cultures the mind is not associated with the brain, or with the body at all, but with the spirit or soul. In the summer of 2006, I visited a classroom in Bali where every lesson was concerned with integration of body, mind and spirit. In Ecuador, I asked questions about health and education, and it did not make sense to the Shuar, the villagers we stayed with, to separate the body from the mind from the spirit. It does not make sense to me. It might be time to distinguish between knowledge and wisdom, and willingly acknowledge that distinction in our teaching. Holistic learning takes place when a student is engaging all parts or “functions” or as Carl Rogers (1980) would describe it, is “integrated and whole” (p. 15). Adrianna Kezar (2005) “challenges the notion of learning as falsely representing the process in nonholistic ways” and she writes:

We need to embrace definitions of learning that embrace the growing diversity of people within institutions such as higher education. I believe that using the term *wisdom*, rather than learning, is important since learning has become associated with value-free, rational knowledge developed through abstract reasoning. Wisdom transcends various cultures and time periods and represents a broader definition. The dictionary defines *wisdom* as judgment, discernment and insight (often a spiritual orientation), reason (traditional notion of learning and knowledge), common sense (often normative or values driven), understanding (often through empathy and relationships), and perception (through experience and observation). (pp. 49-50)

The Literature Review discusses current trends in higher education, including ways in which spirituality and contemplative practices are being integrated into higher education. The link

between contemplative practices, *callings*, intuition, brain functioning, and neuroplasticity (changes in brain structure and functioning) became more clear to me.

Your Brain on Intuition

It's the last day of classes at Lesley College, Spring 2009. In one class, Holistic Approaches to Healing, I ask, "What, if anything, has shifted for you this semester after learning about various healing modalities and new ways of thinking about your own thinking?" One of my students, Eileen¹, wearing her usual 1970s headband and Cheshire cat smile, softly states, "I've learned to check in with myself about what's important to me. I'm going to claim my vision and be the writer I know I am." She goes on to say how her parents always thought of her sister as the artist, minimizing Eileen's desire to follow what she calls her vision. She has declared her major, Creative Writing.

One purpose of this background information is to introduce intuition as it will be applied to, and woven throughout, my heuristic research project. As noted, the larger project explores the question of *callings*. Eileen received a *calling*, or personal invitation from her inner voice when she "learned to check in with" herself. The belief that *calls* are heard through an intuitive process is an essential theory in my work. I'm curious about the broad question of how, or if, such guidance is experienced for traditional age college women; if so, are there conditions that sharpen or deaden that inner voice.

My intention here is first to present cultural and historical perceptions of intuition, pointing out shared properties throughout diverse ways of knowing. Next, using those universal qualities, I will operationalize intuition, providing a context in which to understand its meaning in my work. Third, I'll explore the possible role of contemplative practice, such

¹ Name and identifying characteristics have been changed.

as meditation, in helping access intuitive messages. Finally, I'll provide a basic, broad overview of brain activity and changes relevant to contemplative practice and intuition.

Bridging intuition and contemplative practice might enhance the process of meaning making and the ability for college students to hear their personal *call*. Karen a 21-year-old graduating senior states, "I am most balanced when I have one foot in my inner world and one foot in the outer world." She goes on to say that when she is too much in the outer world, which she states, for her, means thinking too much, she becomes self-critical and unsure. "I start to think I'm not as smart as I am. I've learned that becoming mindful of the present moment brings me back into that place of balance."

What Karen means by "becoming mindful" or Eileen when she speaks of "claiming her vision" and how they capture those ways of being, and knowing, will be explored in my research.

What is intuition? There are probably as many responses to this question as there are individuals. Karen, a student enrolled in my Holistic Approaches to Healing class, describes it as "a sense of fluidity with the moment." Following is a discussion of some of the classic ways that intuition has been described.

Carl Jung, a twentieth century psychologist, provided the building blocks of humanistic psychology. He presented the first westernized idea of intuition, and he related it with what he defined as the other three psychological functions: thinking, sensing, and feeling. He wrote:

(L. *intueri*, to look at or into). I regard intuition as a basic psychological *function*

(q.v.). It is the function that mediates perception in an *unconscious way*. Everything,

whether outer or inner objects or their relationships, can be the focus of this perception. The peculiarity of intuition is that it is neither sense perception, nor feeling, nor intellectual inference, although it may also appear in these forms. In intuition a content presents itself whole and complete, without our being able to explain or discover how this content came into existence. Intuition is a kind of instinctive apprehension, no matter of what contents. (Jung, 1971, p.453)

Osho (2001) was a spiritual leader and philosopher from India. He became known also as Zorba the Buddha because of his controversial ideas (which some say included lavish spending and a cult-like sexual lifestyle) coupled with spirituality. The accusations have never been confirmed and his inspirational teachings brought many important, thought-provoking eastern philosophies and practices to the world. He provides a more mystical philosophy for intuition:

Intellect is involved with the known and the unknown, not with the unknowable. And intuition works with the unknowable, with that which cannot be known. It is not just a question of time before it will be known – unknowability is its intrinsic quality.

(Osho, 2001, p. x-xi)

Raju, another Indian philosopher, whose work focuses on the cultural differences in intuition, generalizes intuition as:

...immediate or unmediated knowledge. Etymologically, it means “looking into”, that is, it is knowledge obtained not by looking outside one’s self – whatever the word self means, and its meaning may not be discussed for the present – but by looking inside one’s self. (Raju, 1952, 187)

Mona Lisa Schultz, a neuropsychiatrist working in the United States, characterizes intuition as immediacy of knowledge (nonanalytic, nonrational, a gestalt way of knowing), and preverbal. She links intuition with emotion: “Intuitive insights involve emotion. They’re hard to describe in words, or more accurately, they reveal themselves first as a gestalt, as hunches that are difficult to put words to” (Schultz, 1998, p.10).

What do these different perspectives on intuition have in common? Their “orienting generalizations”, are those “broad, general themes [that] emerge, about which there is actually very little disagreement” (Wilber, 2007, p. 23-24). They all include the quality of immediate, unmediated knowledge or an unconscious way of perceiving/knowing. These qualities operationalize intuition as an immediate way of knowing something without being able to describe where the information, message, or *call* came from. When I asked Elaine to describe what happens when she “checks in”, she states, “If I’m honest with myself I just know something is meant to be listened to because it is clear. It feels different in my body. It’s unmistakable. I can’t describe it any other way.” Part of the challenge in taking on a topic such as this is that it is often difficult to describe with words. Part of the fascination is in sorting through the language to describe such moments. Levoy (1997) writes:

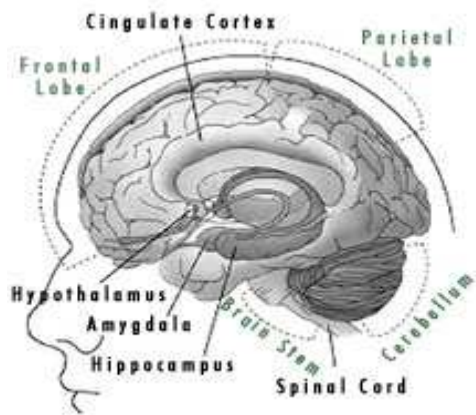
We need to teach ourselves to sit quietly and listen, just listen, long enough to leave a decent indentation on the couch. If all our moments are filled with words and thoughts, with noise however joyous, then when it comes time to convey our deepest intuitions, when life demands guidance from within, we’ll be speechless... We’re after something that lies beneath the noise, something literally unthinkable, something that is not so much communication as it is communion – a felt language, a silence filled not with emptiness but with presence. (p. 27-28)

Brain Function and Intuition. According to Geyer (2009), “The brain is the functional filter for our inner and outer worlds.” The brain coordinates and communicates both with our mind and with the world around us using a vast system of neural networks. When Karen, the student mentioned earlier, is “thinking too much” she is engaging the left hemisphere of the brain (Bain, 2006; Brizendine, 2006; *Jossey-Bass reader on the brain and learning*, 2008; Kail, 2000; Meissner & Pirot, 1983; Nisbett, 2003). What happens in Karen’s brain when she is being “mindful of the present moment” is less well understood. But, researchers using electroencephalographic measures (EEG) and functional magnetic resonance imaging (fMRI) see what happens in the brain when we engage in contemplative practices such as mindfulness, a type of meditation (Aftanas, 2005; Cahn & Polich, 2006; Luders, et al., 2009; Lutz, et al., 2004; Wallace, 2007). They also see brain activity during intuitive processing (Volz & von Cramer, 2006).

The brain is much more complex than could be discussed in detail in this paper; however an overview provides the foundation for understanding the brain’s potential role in the intuitive process. Brain physiology (several hormonal actions) and anatomy (Figure 1) relevant to a discussion on intuition include, but are not be limited to the frontal lobe, the temporal lobe which houses the amygdala (along with other areas which will not be reviewed here), the corpus callosum (surrounded by the cingulated cortex), and the brain stem.

Brain Structure and Intuition. First, I address specific brain components and the unique function of each. Then, I examine the new research that indicates that these areas of the brain communicate with each other. They can rewire to take up functions of a weak or nonfunctioning part, and can rewire and produce new cells at any age. This is a shift from a

theory of brain localizationism and rigidity to one of neuroplasticity for which Doidge (2007) provides an in depth research review. Contemplative practices may involve changes in the brain which may impact intuition (or inner ways of knowing) and *callings*.



Source: <http://www.nida.nih.gov/ResearchReports>

Figure 1

Left/Right Hemisphere Functions. The brain is divided into halves. Each half, or hemisphere, of the brain has distinctly different functions. The left hemisphere processes in a more rational manner, concerned with details and words over images. Using whole pictures or images, the right hemisphere processes nonrational thoughts and behaviors. Connecting the two hemispheres is the corpus callosum. Surrounded by the cingulated cortex, the corpus callosum is the largest white matter structure in the brain. Suggested gender differences are found within these areas (Bain, 2006; Brizendine, 2006):

The traditional male brain is 10 percent larger than the traditional female brain but has fewer connections between the cells. The traditional female brain may be smaller but it has more connections between brain cells. The corpus callosum, which connects the two hemispheres, is bigger in women. These basic structural differences

may explain some of the differences between men and women in how they see the world, what they pay attention to, how they remember events, and how they get in touch with their intuition. (Schulz, 2005, p. 21)

To better understand how a brain differentiates a thought from intuition, imagine your brain as a highway with toll booths controlling data and messages received. One major toll booth is your frontal lobe; how it functions can make all the difference in contemplative practices and intuitive *calls* may be experienced.

Frontal Lobe (The Toll Booth). The frontal lobe is that part of the brain used when judging, evaluating, or analyzing. It is also where self-judgment, guilt, and shame are processed. The primary functions of this part of the brain include: goal setting, assessing strengths and weaknesses, planning and/or directing activities, initiating and/or inhibiting behaviors, monitoring current activities, evaluating results, and processing thoughts. A thought first stops at the frontal lobe. It is where you, the driver, ask directions and analyze whether or not you're heading in the right direction. An intuitive message doesn't need to stop at the toll booth (frontal lobe). Intuition has an Easy-Pass – the ability to by-pass the frontal lobe, going directly to its destination (temporal lobe).

During a workshop at the Cape Cod Institute, Schultz (2007) categorized intuition as an emotion due to the way it is processed throughout the body. The frontal lobe can help us deal with emotions with the right amount of intensity, keeping us from being too overwhelmed, driving us over the edge. People with low functioning frontal lobes are like toll booths without operators, and have what Schulz calls “emotional incontinence” and often

lack strong filters for thoughts, emotions, or actions. She herself says her frontal lobe is hanging on by a thread, which is one explanation for her high degree of intuition. She explained, “When we get an intuitive hit we almost always engage our frontal lobe and try to make rational sense out of it. Once you commit to your frontal lobe [or get too involved in a discussion with the toll booth operator], your left hemisphere kicks in, shuts down the right hemisphere and therefore the intuitive process” (Schulz, 2007). Learning to “push aside our frontal lobes,” as we do unconsciously when dreaming, allows the intuitive message to be heard and brought to our full attention. Unlike dreaming, this involves discernment, being able to tell the difference between a thought and an intuitive message or *call*.

As mentioned, different areas of the brain are activated by a thought versus an emotion or intuitive message. Learning to differentiate the two is a skill which can be developed or strengthened. A thought, which stops at the frontal lobe/toll booth, interacts with the operator (asking questions, judging, etc.). It is experientially different from intuition. The frontal lobe can process thoughts about it, but those thoughts are different than the message. If you question the reality of that message or over-rationalize it, you are ignoring the intuitive message and could needlessly pay a high toll (physically, psychologically, and spiritually).

Temporal Lobe - Limbic System. The temporal lobe has the general function of processing emotions. Like the frontal lobe it is divided into right and left hemispheres; each side having specific functions. The temporal lobe is the destination for an intuitive message; and the amygdala is an important part of the temporal lobe in the intuitive process. This importance turned out to be an interesting consideration in the analysis of my data.

Amygdala. The amygdala processes body memories and emotional events, including intuition (Volz & von Cramon, 2006). If the emotion or intuitive message is allowed to reach its destination unblocked, we can use it to our advantage. If the emotion or intuitive message is unresolved, a physiological stress response is initiated, sending hormones (including the neurotoxin cortisol) through the brain stem to various parts of the body. An increase in cortisol can lead to physical illnesses or body symptoms, as well as mental and spiritual dilemmas (Aftanas, 2005; Kabat-Zinn, et al, 1992; Viadero, 2004).

The amygdala is also where we process issues related to trust, such as our ability to trust intuitive messages or *calls*. This includes trusting our ability to bridge that part of us that consciously constructs information and makes rational judgments with that part which functions more intuitively because:

...rationality without intuition results in linearly well-arranged fragments, whereas rationality in the service of intuition contributes to deeper perspicuity. I also consider it probable that intuition without rationality can lead to unexpected precipices.

(Birgerstam, 2002, p. 432)

This is what my student, Karen, means when she speaks of becoming balanced, allowing herself to trust her inner (mindful) self with her outer (thinking) self.

Hormones and Brain Function. “Hormones can determine what the brain is interested in doing” (Brizendine, 2006, p. xvii). Some female hormones play a role in activating various areas of the brain including those hormones associated with the intuitive process. Lieberman (2000) suggests a correlation between hormones, brain functioning, and the intuitive process. This does not imply that male hormones don’t also play some role in

this process, but my research will focus on college women's experiences of intuition and *callings*.

Estrogen levels are highest premenstrually and during menopause. Progesterone, which has an antianxiety effect, decreases during perimenopause. Some women experience increased anxiety and depression during these times. The right temporal lobe is associated with these emotions including intuition which becomes more active when estrogen is high (Schultz, 2005, p.31-32). An increase in estrogen and a decrease in progesterone may contribute to women's intuition.

Gut feelings are not just free-floating emotional states but actual physical sensations that convey meaning to certain areas in the brain. Some of this increased gut feeling may have to do with the number of cells available in a woman's brain to track body sensations. After puberty, they increase. The estrogen increase means that girls feel gut sensations and physical pain more than boys do....Therefore, the relationship between a woman's gut feelings and her intuitive hunches is grounded in biology. (Brizendine, 2006, p.120)

Denying Intuition

When an emotion, including intuition, is denied, a series of neurological events is generated, cascading from the brain through the brain stem into the rest of the body (Lupien, et al., 2009; Schulz, 2007; Stowel, Hedges, Ghambaryan, Key, & Bloch, 2009). Depending on what is being silenced, differing symptoms, illnesses, or negative outcomes will result. This is not new information when it comes to emotions in general. We know that deep shame, repressed anger, unresolved guilt, or other stressful issues not dealt with will end up

presenting in the body as ulcers, headaches, backaches, or other physical symptoms. How intuition fits into this picture, the ways in which the brain and body process intuition is a relatively new field of study. Schulz (2007) states, “just like emotions that don’t get acknowledged and end up as body symptoms, if you don’t pay attention to intuition it will come out as body symptoms.”

Strengthening Intuition

The brain is wired to deal with “such universal human activities as seeing, hearing, and walking, which develop with minimal prompting and are shared by all humanity, even those rare people who have been raised outside a culture.” Doidge (2007) then goes on to describe signature activities which “require training and cultural experiences and lead to the development of a new, specially wired brain” (p. 291). For example, meditation is a signature activity.

Contemplative practices such as meditation create positive effects in overall well being (Aftanas, 2005; Bishop, 2002; Kabat-Zinn et al. 1992; Majumdar, et al. 2002). Cahn & Polich (2006) define meditation as “practices that self-regulate the body and mind, thereby affecting mental events by engaging in a specific attentional set” (p. 180). These authors also state that “measurements of the brain response to meditative practice is based on the premise that different conscious states are accompanied by different neurophysiological states and on reports that meditation practice induces distinct states and traits on consciousness (Cahn & Polich, 2006, p. 181). They go on to discuss the differences between states which may refer to a momentary change in awareness, versus traits which have more long-term implications. Using electroencephalographic and neuroimaging techniques, these authors present an

overview of many meditative techniques including Zen, Transcendental Meditation, yoga, and mindfulness. It is not the intention of my project to focus on any one contemplative or meditative practice, but to begin to determine how such practices impact brain physiology and anatomy as those changes relate to intuitive *calls*.

Research into contemplative practice's influence on the brain are well documented (Aftanas, 2005; Cahn & Polich, 2006; Davidson, et al., 2003; Kabat-Zinn, 1992; Luders, et al., 2009; Lutz et al., 2004; Travis & Arenander, 2006). Neuroplasticity is the process whereby brain cells can change and increase neural connectivity. "Mindful awareness is a form of experience that seems to promote neural plasticity" (Siegel, 2007, p. 31). Neuroplasticity is found to be heightened in long-term meditators, with different brain areas influenced depending on the type of meditation (Cahn & Polich, 2002).

Many contemplative practices appear to impact areas of the brain related to the process of intuition (Luders, et al. 2009; Malhi, 2007). Using functional magnetic resonance imaging (fMRI) researchers are able to see areas of the brain most active during intuitive experiences (Volz & von Cramon, 2006), which are the same areas influenced by some contemplative practices.

Doidge (2007) writes about Jordon Grafman who identified four kinds of neuroplasticity: map expansion, sensory reassignment, compensatory masquerade, and mirror region takeover. Meditation may lead to map expansion as it is the type of neuroplasticity "which occurs largely at the boundaries between brain areas as a result of daily activity" (p. 276). The three other kinds of neuroplasticity relate to deprivation in normal input (sensory reassignment), diversity in the brain ability to do a task (compensatory masquerade), and what happens when an area of the brain fails and its counterpart takes over (mirror region

takeover). By introducing a signature activity such as a contemplative practice into a student's daily activity, an expansion of the part of the brain used to access intuition, *callings*, and meaning-making may be enhanced.

This chapter focused on and made connections among three topics. The first topic is intuition which I've operationalized as an immediate, unmediated way of knowing. The second topic is the discussion of the bridge between contemplative practice, intuition and *callings*. And finally, I examined how contemplative practices can lead to neuroplasticity, including those brain changes that may be influential to the intuitive process.

These three topics were further explored as I investigated the question of *callings* for undergraduates. Author Gregg Levoy perfectly explains why this topic matters to me. He said to me, "I'm a lone cry in the wilderness – hired by colleges from time to time to let students hear about the rest of the story, about the passion in work. Students are asking for permission to talk to that place inside." I often hear students, like Karen and Elaine, talk about that inner voice or vision. I am interested in that "place inside," what it means, and how to bring it to the surface for the young women, like Karen and Elaine, that I have the pleasure of teaching.

Literature Review

The landscape of higher education is constantly shifting. Often these shifts correspond to social, political, or sociocultural issues on campuses across the country. This literature review examines current, yet paradoxical trends that have been unfolding in higher education over the past several decades. These trends will be explored as they relate to my research interest; the ways in which students explore questions of personal meaning making or receive guidance to discover unique *calls* during their undergraduate experience.

The first shift in higher education that will be addressed involves the increase in professional studies major over liberal arts majors. Goyette and Mullen (2006) suggest, “Training in the liberal arts is believed to strengthen a student’s character and to develop qualities such as reason, judgment, and a sense of social obligation” (p. 498). The issue about this increasing shift towards professional studies is woven into, and sometimes complicated by, the larger issue of the corporatization of colleges and universities (Aronowitz, 2000), sometimes referred to as the learning-to-earn model of higher education (Nash, 1978). The paradoxical trend finds undergraduates increasingly interested in areas related to spirituality, meaning-making, and personal growth (Doe, 2005; Holland, 2006; Lindholm, 2006/2007; Lindhold, Goldberg & Calderone, 2006; Swartz, 2007; Subbiondo, 2005). However, the literature indicates that this more personal pursuit is increasingly complicated as the approaches and perspectives of what is considered spiritual or meaning-making have begun to categorically overlap and expand (Forbes, 2004).

The trend towards corporatization of higher education is a movement away from personal quests or self-reflection, while the other trend, making meaning of the undergraduate experience is a trend towards the exploration of personal meaning, quests, and

self-reflection. Questions on the direction that higher education will take revolve around the question of purpose. What is the purpose of higher education? How will that be decided, and by whom? As Holland (2006) writes:

It is probably not by chance that an increasingly urgent call for contemplative practices in health and educational settings is occurring at the same time that these settings are being overwhelmed by bureaucratic and policy demands that often drain them of their creative, formative, and healing purposes. (p. 1843)

First I'll review the literature on the shifts within higher education itself: professional or practical studies positioning over liberal studies in undergraduate majors; and, the larger more ubiquitous take-over by the corporate model in colleges and universities across the United States. Then I'll review developmental theories questioning the readiness of college students to be making career or vocational choices. I include this review on developmental readiness as it comes up often and is an important consideration for traditional students. Next, I'll bring in the literature on the increasing trend of college students' interest in exploring issues related to spirituality, meaning-making, purpose, or *callings* during their undergraduate experience. How contemplative practices are currently being integrated into higher education also will be addressed. Finally, I'll review some of the perceived obstacles with the concurrent trends of higher education towards corporatization while students are actively pursuing issues related to meaning-making, spirituality, and personal quests.

Trends in Higher Education in the United States

The review of literature on trends in higher education in the United States revealed two significant paths stretching head for higher education. The first path is the shift from liberal studies to professional or practical studies. The second path is the trend towards corporatization of higher education in the United States. Both are important for discussion; each has a different message. Both trends will be addressed in this literature review with an emphasis on the more ubiquitous issue of corporatization of higher education.

Professional versus liberal studies. “One of the most important changes in American higher education over the last 30 years has been the gradual shrinking of the old arts and sciences core of undergraduate education to the expansion of occupational and professional programs” (Brint, Riddle, Turk-Bicakci, & Levy, 2005, p. 151).

Acknowledging the movement towards increasingly professional over liberal studies in higher education in the United States, some authors (Freeland, 2004; Raelin, 2007) offer a third option. Instead of boxing the intention or purpose of higher education into either professional or liberal studies these authors recommend combining the two by blending theory and practice. Freeland (2004) calls for “practice-oriented education” (p. 141). He reports that the trend towards training as the focus in higher education “began taking shape amid the turbulence of the late 1960s and early 1970s” when “some educators recognized that higher education had been permanently democratized and that many students – including some of the most talented – had a legitimate interest in preparing themselves for the workplace” (p. 141-142). The initial response was to “build bridges between liberal and professional education” (Freeland, 2004, p. 142). Raelin (2007) also provides a historical

perspective to the current situation, noting what he calls the “most recognized trend in college education...[as] the decline in liberal arts” (p. 57) and suggests “reflective practice” (p. 61) as an option to the either/or choice of training or learning.

Often thought of as the public form of reflection that can be characterized as the process of inquiry that seeks to uncover and make explicit what one has planned, observed, or achieved in practice, such as what might be made available through internship-type experiences. (p. 61)

Corporatization of higher education. Simply moving towards professional studies does not in itself mean the university is becoming corporate. As will be reviewed herein, one option for undergraduate programs is towards blending professional and liberal studies without corporatization of the college or university. However, this does not appear to be the direction higher education is moving in.

In fact, as corporations gained more political power and started handing out larger amounts of funding to colleges and universities, the business (or learn-to-earn) model began to take over academia. As Cohen notes, there was a “shift of power from faculty to administration” with business and corporations beginning to exert pressure in defining the direction, or purpose, of colleges and universities (1998, p. 150-164). This trend continued throughout the twentieth century and into the twenty-first (Aronowitz, 2004; Brint, 2002) and has had profound effects on the curricula and experience of faculty and students.

There is a movement in this country away from colleges and universities as learning organizations (Bok, 2009) towards training facilities or knowledge factories (Aronowitz, 2000). This is more than simply a shift from liberal arts to professional studies. This is a

change from learning for pursuit of knowledge to learning as training to match the needs of the job market (the learn-to-earn model).

In his review of four prominent books on the topic of the learn-to earn model in higher education, Walter (2001) acknowledges that his primary interest is in adult education but the trends he finds cross boundaries between traditional and non-traditional college experiences. Three of the four books “address different aspects of the wider corporate restructuring of the academic world to which the field of adult education belongs” (p. 71). The fourth book, *The Corrosion of Character* by Richard Sennet, explores the negative impact that moving the corporate model onto academia has had on faculty (p. 75). The other three books include Aronowitz’s *Knowledge Factory*, Turk’s *The Corporate Campus*, and *Academic Capitalism* by Slaughter & Leslie. These three titles share an agreement that higher education has turned corporate. Each uses a slightly different lens to view this trend but come to similar conclusions. Aronowitz focuses on how “universities have now shifted to preparing students for the job market and research ‘products’ for sale in the knowledge economy” (Walter, 2001, p. 72). Turk’s primary interest is in the ways in which online and commercialized distance learning have negatively impacted student and faculty satisfaction on many levels (Walter, 2001, p. 73). And finally, Slaughter & Leslie “begin their work by implicitly accepting the new corporate rules of the game and search mainly to understand who wins and loses and why” (Walter, 2001, p. 73).

Historical perspectives leading to the restructuring of higher education can easily be found (Andrews, 2006; Brint, Riddle, Turk-Bicakci, & Levy, 2005; Walters, 2001). Factors cited include shifts in enrollment, tuition increases and decreased funding (forcing students to

focus more on earning to pay back loans), funding shifts from grants to loans, less autonomy for faculty, more adjuncts filling larger classrooms, more funding going to research and sciences, and academia looking more and more like corporate workplaces with business leaders stepping into the boards of colleges and universities. These factors relate to shifts in the economy, globalization, and increased technology woven into the texture of higher education. Andrews (2005) suggests one option to help reverse the corporatization of higher education is for faculty to take an active role in bringing the issue to the national level. Examples of how to take an active role is to bring the discourse on the learn-to-earn model in higher education to local and national conferences, and/or advance research on the long term outcome for students and faculty on the corporatization of colleges and universities.

Again, the question is not whether or not higher education is moving towards a corporate learn-to-earn model, but how and with what outcomes. How will this trend impact already marginalized groups? This missing piece to a developing puzzle highlights ways in which “gender, class, race, ethnicity, sexual orientation, or disabilities are almost nowhere to be found...[That if] the commercialization of higher education will soon come to pass then we can safely predict that marginalization of women and minorities in academia will intensify” (Walter, 2001, p. 76).

In exploring whether or not “social background predicts college destination” Goyette & Mallen (2006, p. 498) acknowledged the choice that curriculum and majors have on students, but were interested in how students made those choices. Is learning-to-earn a factor in making such choices? These authors “have grounds to suspect a positive relationship between social background and selection of arts and sciences fields” (Goyette & Mallen,

2006, p. 503). This may further address what Walter (2001) calls into question about widening the gap between specific groups and fields of study as the shift towards training continues.

Undergraduate education and spirituality. Addressing a discourse on the corporatization of higher education and the place spirituality, or pursuing a personal quest, might have for undergraduates are the following findings as cited by Brint, Riddle, Turk-Bicakci, & Levy (2005):

...findings of sharp declines in self-reported gains among American college students in the 1990s as compared to college students in the late 1960s in awareness of different philosophies and cultures; in understanding and appreciation of science, literature and the arts; and in personal development when compared to American college students from the late 1960s (Kuh, 1999). (p. 152)

Bok (2006) noting that many students enter college without a clear career sense states that these same students change majors several times as undergraduates (p. 286). There seems to be some agreement that traditional age undergraduates are at a point in their lives when some uncertainty about future careers goals is mixed with a desire to pursue a career that matters to them. The definitive study indicating the desire for undergraduates to more actively pursue meaning, purpose, or spirituality is the work undertaken at the University of California's HERI, Graduate School of Education and Information Studies. Their 2004 findings are most significant to this literature review. The preface to the study, *The Spiritual Life of College Students: A National Study of College Students' Search for Meaning and*

Purpose, reports that they surveyed “112,232 entering first-year students attending 236 diverse colleges across the country” (Higher Education Research Institute, 2004). Others (Becker, 2009; McFarland, 2006; Subbiondo, 2005) find similar results to the HERI study:

Four in five indicate “having an interest in spirituality” and “believing in the sacredness of life,” and nearly two-thirds say that “my spirituality is a source of joy.” Many are also actively engaged in a spiritual quest, with nearly half reporting that they consider it “essential” or “very important” to seek opportunities to help them grow spiritually. Moreover, three-fourths of the students say that they are “searching for meaning/purpose in life,” and similar numbers report that they have discussions about “the meaning of life with friends.” (p. 4)

This quest for meaning or spirituality does not appear to be limited to specific types of schools or majors. For example, Lindholm, Goldberg & Calderone (2006) focused on law aspirants and how they “negotiate issues of meaning and purpose through spiritual questioning” (p. 510) successfully outlining the confusion and “elusive task for scholars” (p. 511) of defining spirituality. They compare this group with students across all majors. “Ultimately, it is the resolution of internal insights coupled with one’s subjectivity in the world that represents the core feature of spiritual quest” (p. 513).

Although students across all majors seem interested in such quests, Lindholm, Goldberg & Calderone (2006) found:

Women in the professional career aspirant group appeared to be more inclined toward spiritual questing than men. This is consistent with our expectations and findings from Astin, Astin, Lindholm, and Bryant’s 2005 research on a broader sample of

respondents to the 2004 CIRP/CSBV Freshman Survey that included students who aspired to pursue a wide range of careers. (p. 521)

Bryant (2006) raised the question about terminology used in various studies suggesting confusion develops when surveying topics such as spirituality and religion. In spite of some terminology differences, her findings match those of the HERI study (2004) in finding a desire for undergraduates to explore issues related to spirituality, meaning-making, and individual purpose.

The challenge in reviewing the literature about purpose and meaning-making in the undergraduate experience is to navigate the confusing network of terms and concepts involved. However the concepts have common threads. Some of the terms used to discuss this purpose and meaning-making in the literature include holistic (Forbes & Martin, 2004; Miller, 1995), spiritual (Becker, 2009; Lindholdm, Goldberg, & Calderone, 2006; Subbiondo, 2005), religious (Becker, 2009; McFarland, 2006), contemplative practices (Deckro, et al, 2006; Holland, 2006; Zajonc, 2003), individuation (Dirkx, 2006), or meaning-making (Ignelzi, 2000; Schwartz, 2007).

Developmental theories of Jack Mezirow (2000), William Perry (1999), and Robert Kegan (1980) consistently came up in the literature on meaning-making for undergraduates. Ignelzi (2000) referring to all three theorists states that “meaning-making, the process of how individuals make sense of knowledge, experience, and the self, must be considered in designing college curricula environments supportive of leaning and development” (p. 5). He refers to Perry’s claim that what we do as humans is to organize meaning. He also describes what he calls “orders of consciousness” as a system of meaning-making. He claims that

theorists on development agree that there is a disconnect between the development stage of most college students and their ability to pursue meaning. He suggests “a central goal of higher education should be the achievement of self-authorship” (p. 13) which would enable students to develop the capacity to make meaning during college. A form of self-authorship comes from a student’s ability to reflect. Grossman (2008) refers to Kegan’s Object-Subject Theory and ways in which inspiring reflection can build on the idea of meaning-making. Grossman’s article clarifies types of reflection and the impact on development and meaning-making. Four types of reflection are noted: content-based reflection, metacognitive reflection, self-authorship reflection, and transformative/intensive reflection. Content-based reflection involves blending theory and practice (for example internships). Metacognitive reflection requires students reflect on their own thinking, while self-authorship reflection and transformative/intensive reflection require the student distances themselves from their situation or thoughts and reflects critically. The latter two types of reflection heighten the student’s self-authorship and meaning-making potential.

Schwartz (2007) blends meaning-making with the quest for spirituality stating, “Meaning-making provides ways of giving expression to the things we know intuitively” (p. 4). She relates this intuitive knowing to a spiritual experience. She discusses trends that may, in her opinion, negatively influence meaning-making such as technology, economic uncertainties, and consumer exploitation with increased debt. She also notes that these young adults are “living in an increasingly religiously variegated world. The young adult population is seeking a spiritual home and sense of belonging in a world that now offers a smorgasbord of choices” (p. 7). In Schwartz’ interview with Sharon Daloz Parks, a college

administrator, chaplain, and instructor, the call to mentor students through such choices is heard.

Several terms come up in the literature referring to Robert Kegan's theories. Grabinski (2005) uses Kegan's term "holding environments" to define the undergraduate experience as a time when students can be supported during developmental changes. He then goes on to stretch the term to include the importance of supporting environments throughout the lifespan to include the social, psychological, and physical nature of the environment. These holding environments have three main functions: holding, letting go, and maintaining (p. 81-82). Holding refers to the ability to work with a student during the sometimes frustration and anxiety of developmental shifts; letting go is allowing the learner to move beyond their limited perceptions; and, maintaining refers to the community that provides a stable environment throughout developmental shifts. Colleges and universities can, and should, be such holding environments.

The ways to frame what is being sought in such holding environments is still in question. Forbes (2004) analyzed the literature of K-13 programs that claim to be holistic. Of the 72 schools that met that claim, he found that they self-identified in one of two ways. First there are schools that focus on self-actualization, with either a spiritual or religious theme, where self-actualization or aiming for fully-functioning persons is the goal. The second category of schools aligns with issues related to social justice and freedom. Forbes (2004) found the following: common phrases such as experiential learning and community were used in a variety of ways; purpose of education were expressed in similar ways; there seemed to be a set of core values from school to school; and, all fell within a spectrum of what the authors felt were holistic qualities. Although this analysis only included grades K

through 13, it is a good place to look at the landscape as it begins to expand into higher education.

The undergraduate quest for meaning. This section is a review of the current practices of holistic higher education including colleges and universities which have instituted secular spiritual or contemplative practices into their students' experiences. Zajonc (2003) writes:

Today we find ourselves at the onset of a "controversy" concerning the place of spirituality in our now mature secular college and university system that is similar to that of the thirteenth century. I feel the implications of the current interest in spirituality in higher education may prove to be of comparable significance for the future of liberal education. (p. 51)

He goes on to state:

One of the most interesting initiatives has been the Academic Program of the Center for Contemplative Mind in Society. Over the last six years they have worked closely with the American Council on Learned Societies (ACLS) to grant 100 "contemplative fellowships" to full-time faculty to support the development of courses at over eighty institutions ranging from poetry and contemplation at West Point, to contemplating the cosmos at UC Santa Cruz, and contemplative practice and health at the University of Arkansas. (p. 53)

Three pedagogical models for holistic education revealed through the literature review include: 1) the development of specific courses on contemplative practices or

exploration of purpose, 2) the integration of approaches to strengthen individual meaning-making or spirituality, and 3) the development of extracurricular activities, such as meditation groups, supporting wholistic education.

Where contemplative practices have been made their way onto undergraduate campuses, the reported results have been positive. Contemplative practice is broadly defined as:

... a third way of knowing that complements the rational and the sensory. The contemplative mind is open and activated through a wide range of approaches – from pondering to poetry to meditation – that are designed to quiet and shift the habitual chatter of the mind to cultivate a capacity for deepened awareness, concentration, and insight. (Hart, 2004, p. 28)

Meditation, prayer, or religious language can be found in definitions of contemplative practice. Contemplation comes from the Latin root *templum* (from the Greek *temnein*: to cut or divide), to separate something from its environment or usual state. There are many definitions of contemplation ranging from the mundane to the mystical or religious. I suggest that activities other than meditation or prayer need to be included in this definition, such as art making, dancing, or simply being in nature.

The positive impact of contemplative practice, such as meditation, on relieving stress is well documented (Aftanas, 2005; Davidson et al., 2003; Kabat-Zinn et al., 1992). Contemplative practice directly impacts the brain and therefore learning and development at every stage of life including that which takes place for undergraduate students.

The human brain is divided into two distinct hemispheres. The left hemisphere processes logic and details – where western higher education primarily teaches to and from.

The right side processes abstract concepts – creativity, emotions, and intuition function (Schulz, 1998; Volz & Cramon, 2006). Contemplative practice impacts two areas of the brain most significantly: the prefrontal lobe, where attention is facilitated, and the right hemisphere where creativity, emotions, and intuition are processed (Aftanas, 2005; Davidson et al., 2003; Deckro et al., 2002; Douglas, 2006; Sarath, 2006).

Contemplative practice in education. Contemplative practice is usually framed around concepts such as religion, spirituality, or meditation. *Spirituality* and *holistic* are terms used inconsistently throughout the literature on holistic education. One conference paper presents an attempt to find “kinds of holistic schools by identifying individual schools within (an) original matrix and looking for differences between those schools” (Forbes, 2004). They found two general categories of schools referring to themselves as holistic: the first focusing on social development, the second on self-knowledge. This second category can further be divided into faith-based or religion-based (which might be referred to as spiritual) and those without attachment to god, faith, or religion (but is still referred to as spiritual by some). My interest is with the latter – schools that focus on self-knowledge.

I prefer the word *wholistic* or *whole-person* instead of *holistic* to make it clear that I am not referring to a holy, spiritual or religious experience in the usual sense. The terms *wholistic* and *whole-person* education are meant to be all inclusive, no matter the spiritual or religious perspective. However to minimize confusion, provide consistency, and honor the integrity of other’s work I will use *holistic* to mean the secular spiritual interpretation.

Several movements towards holistic pedagogy include: studying the effects of stress reduction in college students (Deckro et al., 2002), exploring learning enhancement through

multiple intelligences (Özdemire, Gaüneysu, & Tekkaya, 2006), applying transformational learning through expressive ways of knowing (Davis-Manigualte, 2006), addressing consciousness and the future of higher education (Sarath, 2006), and the immersion of Transcendental Meditation within higher education (Orme-Johnson, Alexander, & Hawkins, 2005; Travis & Alerander, 2006).

Three broad categories of holistic education in the United States can be defined: 1) those based on a specific spiritual or contemplative practice, referred to as spiritually-based and have built into the curriculum a specific doctrine or philosophy, such as with Transcendental Meditation (Travis & Arenander, 2006); 2) those using contemplative practice as a tool to decrease stress and/or enhance learning, such as with Mindfulness meditation (Davison et al., 2003); and, 3) those weaving contemplative practices throughout all coursework to create whole-person learning (Palmer, 2004). Following are specific examples of each category of holistic education, how each works within the context of higher education, and in what ways each of these expands and/or challenges conventional western pedagogy.

Spiritually-based contemplative curriculum in higher education. Higher education coupled with religious studies is not a new phenomenon. In fact, American universities were originally headed by Protestant ministers and continued well into the nineteenth century (Miller, 1995). Religious studies and spirituality might be viewed as two realities: one primarily focused on a specific doctrine or truth, the other interested in purpose or meaning-making, which sometimes, but not always, overlap. Both realities are the topic

of much discussion in the field of higher education today with the terms religious and spiritual are often used interchangeably.

Subbiondo, in his article on spirituality in education, cites the work of Alexander and Helen Astin who suggest that:

A movement is emerging in higher education in which academics find themselves actively searching for meaning and trying to discover ways to make their lives and their institutions more whole. This quest reflects a growing concern with recovering spirituality in American society more generally. (Subbiondo, 2005, p. 19)

This includes orientations considered more religious or western (Doe, 2005) but also more eastern traditions such as Transcendental Meditation.

Transcendental Meditation (TM) was introduced in the late 1950s by Maharishi Mahesh Yogi. It “involves turning the attention away from outer phenomena and physiological processes toward more silent states of the mind, which serve as the backdrop for mental activity” (Travis & Arenander, 2006, p. 1523). As with other types of contemplative practices, TM has been found to have positive physiological and psychological effects on those who practice it regularly. Foundational to this type of holistic education is the specific contemplative practice and a spiritual doctrine that is build into the university itself. At the Maharishi University of Management all students are encouraged to develop this one style of contemplation. This is not to imply that it is better or worse as a way of integrating contemplative practice into higher education, it simply represents a model for doing so. As a model for educating students in the world of business it certainly challenges the analytical environment of most western businesses, because learning to manage stress

enhances one's ability to more successfully navigate the corporate world (Orme-Johnson, 2005).

Creating consciousness curriculum within higher education. Within this category are studies that introduce courses in meditation as a separate component within a college or university setting. Sarath (2006) describes integrating third person education (conventional western approach) with first-person or "creativity and consciousness studies" using meditation as a way to access consciousness and create a more meaningful experience for students. He stresses the importance of exploring consciousness and learning:

I would argue that the study of consciousness is a foundational educational topic whose study, particularly from an integral perspective, can bring profound meaning to the educational enterprise, and that its contentious nature can be harnessed as a rich connection to a wide range of educational terrain...heightened self-awareness poses extraordinary educational ramifications, for it not only suggests enhanced capacities for introspection but also external creative activity and achievement. (p. 1822)

Sarath goes on to suggest that a way to integrate meditation practice into education:

...would be for the institute to assume the role of meditation center. In other words, meditation would be taught by faculty with corresponding expertise, and coursework dealing with tradition-specific theoretical knowledge about consciousness and its development would also be offered. (p. 1831)

Understanding that this approach may not work in all situations, specifically citing public colleges and universities in this category, or be appropriate from a sociocultural perspective for all students/faculty, Sarath outlines solutions for providing information,

community resources, and organizations for students to access. At the University of Michigan, where Sarath teaches, he has designed a successful program consisting of courses in creativity and consciousness, along with contemplative practice. He notes that:

Even though the focus of meditation may appear to be a temporary retreat from daily activities, which is sometimes misunderstood as an escape from life, the underlying purpose of meditation is for one to be able to engage in life with more passion, creativity, and dynamism. (p. 1828)

Sarath uses student testimonials to show the impact of meditation on their lives. These include “feel as though a weight has been lifted off my shoulders,” “happier,” “more calm and my mind is more clear to make better decisions,” “has enriched my experience,” and able to “absorb more of their content and meaning” (Sarath, 2006, p. 1828).

Holland (2006) also studied the impact of introducing an experimental course in mindfulness at two distinctly different higher education settings (a metropolitan university in Little Rock, Arkansas, and a school for applied sciences in Bad Gleichenberg, Austria). Students were given specific readings about this form of contemplative practice, kept personal journals of their meditation experiences, and were encouraged to discuss the materials and their personal experiences in the classroom. The specific purpose of the course was to promote the practice. Holland emphasizes that some teachers have difficulty in two ways: giving up the role of expert which is essential when integrating contemplative practice into the classroom, and the paradox of asking students to do nothing in an educational environment that stresses the importance of doing. He found that “The course at the University of Arkansas at Little Rock has resulted in growing demand for contemplative educational experiences on campus” which has resulted in his creating a Mindfulness-Based

Campus-Community Health Program. He does not relate the outcome of the Austria project except to say that it provided an opportunity which didn't exist for those students before. He concludes by acknowledging some resistance to including such contemplative practices in higher education, and encourages educators to "address such resistance by developing meaningful and valid assessment approaches for contemplative curriculum in order to confirm its relevance and its place in the academy" (Holland, 2006, p. 1859).

Weaving contemplative practice into the classroom. Tobin Hart (2004) proposes using the classroom as an opportunity to reach the contemplative mind. He suggests focusing on *how* we know because that is as important as *what* we know. He references studies which demonstrate how contemplative practice impacts physiology (physiological coherence, ability to focus, stress reduction, etc.) and suggests various ways to weave contemplation into every classroom including:

- Not Doing: Starting each class with a brief relaxation exercise to help reduce stress.
- Mindfulness Meditation: Getting students to focus on present moment awareness; bringing them more fully into the classroom.
- Deep Listening: Read a meaningful passage and ask students to share what the experience was like. This helps students relate course materials to their own lives.
- Pondering: Pose and invite questions that encourage students to look deep within themselves, again bridging the gap between the course materials and the student's real life experiences.
- A Wisdom Walk: Using guided imagery to help bring students access inner knowing.
- Body Focusing: Clearing a space for students to more fully engage in the moment.

- Concentrated Language: Using poetry to open the contemplative mind and bridge the inner and outer experience.
- Freely Writing: Writing without judgment or concern helps to bring to the surface what needs to be addressed before a student can be fully present for learning in the moment.

The benefits coupled with each activity are not exclusive to one practice. Most of these activities will lead students to experience universal consequences of contemplative practices: stress reduction, becoming more present to the moment, connecting inner and outer realities, and enhanced learning. As Hart (2004) states, “Long dormant in education, the natural capacity for contemplation balances and enriches the analytic. It has the potential to enhance performance, character, and depth of the student’s experience” (p. 38).

Reviewing some of the trends towards integration of contemplative practices in higher education brings up a couple of fundamental questions: What is the purpose of higher education, and whose interests are being served in our current educational environment?

Since the United States is a diverse community of individuals, ethnic heritages, economic interests, and religious and ideological positions – many of which are often in conflict – how is it actually decided which facts and skills, which beliefs and values, are the essential ones to be perpetuated through schooling? Who makes these decisions, and why? Whose interests are served, and whose are not? (Miller, 1995, p. 2)

And:

The fundamental mission of higher education should be to play a leading role, perhaps the leading role, in the development of general culture. This mission falls on

colleges and universities because, for historical reasons, they have been endowed with the intellectual and physical resources to occupy the space....As I have already suggested, this implies that colleges and universities must become public spheres, available to the larger community as well as to the community of scholars. They must be centers of learning, but also sites of discovery, not only in the natural sciences but also in the social sciences and the humanities. (Aronowitz, 2000, p. 172-173)

In his article on meditation, consciousness, and the future of higher education, Sarath (2006, p. 1838) raises similar questions including:

- What does it mean to be educated in today's world?
- What is the role of the modern university in preparing students to not only enter the workforce but also to thrive within and contribute to a world increasingly characterized by change, unpredictability, and a complex network of environmental and social challenges?
- What is the place of inner fulfillment, spirituality, self-knowledge, and emotional and interpersonal development in the educational process?

These questions, and those surrounding larger cultural issues, are essential if a paradigm of holistic education is to be realized. Are we striving to develop a stronger work force, individual development, or both? I believe the focus on research and job training is rooted in fear and tends to separate us as individuals; while the focus on creating a universal human force is motivated by a desire to acknowledge our universal connection. Holistic education would acknowledge the common problems we share (global warming, poverty, human rights issues, etc.), provide learning environments that embrace the whole person and different

ways of knowing, and encourage integration of contemplative practices (meditation, art, dance, connecting to nature) into higher education, where many of the next generation of world caretakers are searching for answers and direction. The answer to these questions and concerns are best summarized below:

Throughout the ages sages have warned us that we can't see what is true even when it is presented to us because that which is true isn't what we expect or want to hear.

The traditional western symbol for this is choosing Barabbas; choosing what is familiar or most like us over what is true or sacred. This is as true in educational matters as it is in religious ones. Modern education is so obviously failing to solve the world's problems, is so rightly criticized for not meeting societies' aspirations, and is so clearly unable to prepare people for the fundamental challenges of living. To solve these problems, we seem to need educational insights that marry the most profound learning possible with the everyday; the subtle with the mundane....

(Forbes, 1997, p. 1)

There are many discussions about meditation, religion, spirituality, and a quest for meaning that all share the common goal of creating a pedagogy of wholeness. Colleges and universities are meant to provide environments where the biggest questions can be asked and explored. If we are heading towards knowledge factories as Aronowitz (2000) suggests, then more than ever educators must find ways to engage in holistic approaches which include the integration of contemplative practices in the broadest sense of the concept; or, as Tobin Hart suggests to design approaches "designed to quiet and shift the habitual chatter of the mind to cultivate a capacity for deepened awareness, concentration, and insight" (Hart, 2004, p.27).

However higher education appears to be moving in the other direction. As such, Askeland and Payne (2006) coined the term edutainment, “because education has become a market product, it is expected to produce events and happenings as if it were entertainment...Edutainment does not promote reflection and contemplation” (p. 171).

Methodology

I chose heuristic research, a phenomenological methodology, to explore the phenomenon of *calls*. Heuristic research invites the researcher to focus on a theme or subject that resurfaces throughout her life. For me, that theme was finding what deeply matters in life, a *calling*. “Callings keep surfacing until we deal with them” (Levoy, 1997, p. 9).

Heuristic research doesn’t only suggest deep self-exploration on the part of the researcher, it requires it. “Locate our research question within ourselves” was the advice given Etherington, who stated it felt like an “exhilarating and terrifying experience” (2004, p. 19). The concept of deep personal reflection both thrilled and concerned me. I was thrilled to be immersed in a phenomenon which has captured my attention much of my adult life; but I was concerned because it is deeply personal. My resistance revolves around questions of validity. As Levoy (1997) writes:

Remember, though, that resistance is also a good omen. It means you’re close to something important, something vital for your soul’s work here, something worthy of you. “If it feels safe, it’s probably not the right path,” Mark Gerzon says in *Coming into Our Own*, “but if it scares you it probably is.” (p. 197)

I was attentive to questions of validity raised by such personal research, so I have set high standards in terms of process, bracketing, boundaries, data collection and analysis. Although a *call* is personal, I believe there is a collective interest with honoring a *call*. Berg (2007) supports the idea of some phenomenon being collective since “logic behind this has to do with the fact that few human behaviors [including our response to or denial of *calls*] are unique, idiosyncratic, and spontaneous” (p. 296). There may be billions of humans, but we

share core experiences as evidenced through common stories and myths. Levoy (1997) writes:

... Willa Cather remarks that “there are only two or three human stories, and they go on repeating themselves as fiercely as if they had never happened before.” She doesn’t say what those two or three stories are, but nearly twenty years into my career as a journalist writing about human stories, and after a lifetime of living my own, I began wondering what stories, deep down, she was referring to – love alienation, death and rebirth? (p. 137)

Phenomenological Approach with a Case Study Outcome

My initial intention was to apply heuristic research to my project, which I did, but while analyzing the data, a case study emerged. The case study explores one student, KT, and her experience with the phenomenon of *calls* as an undergraduate. Berg (2007) states that a case study can focus “on a single phenomenon...to uncover the manifest interaction of significant factors characteristic of the phenomenon...” (p. 284). He also writes that unlike phenomenological methodology which “attempts to uncover or capture the *telos* (essence) of an account” (p. 304), a case study calls for the researcher to specifically look for detailed themes within the data. To develop this case study I was able to review and triangulate KT’s interviews, journals, and her independent approach and analysis of the data. Additional data include more than 300 emails and letters sent to Levoy from readers of his book or participants in his workshops, interviews I conducted with Levoy, his presentation/workshop materials, and my notations from his book, *Callings*.

My research question explored the undergraduate experience because that was a time in my own life when I denied one of my strongest intuitive *calls*. I chose KT as a participant because of her strong critical thinking skills, her curiosity about life, and her interest in intuitive ways of knowing. I chose not to include other undergraduate students in order to maintain, as much as possible, the integrity of the heuristic process. Many of my own notations in the *Callings* book, referred directly to my undergraduate years and the constant pull between inner and outer messages.

Berg (2007) describes three types (intrinsic, instrumental, collective) and three design models (exploratory, explanatory, descriptive) for case studies. Based on these classifications I define my case study as intrinsic-exploratory. Intrinsic because the study was “undertaken when a researcher wants to better understand a particular case” such as my wanting to understand KT’s experience exploring a *call* as an undergraduate. Exploratory because it includes “fieldwork and data collection...before designing a research question...” and has an “organizational framework designed prior to beginning the research” (p. 291-292). I include fieldwork and data collection and had the framework of the heuristic research model in place prior to my research.

My research question relates to ways in which undergraduate students experience tacit or intuitive ways of knowing – a question bridging head and heart, intellect and other ways of knowing – and how contemplative practice may bridge the two and help carry a *call* into being. The terms tacit knowing and intuition are used interchangeably. They share orienting generalizations those, “broad, general themes [that] emerge, about which there is

actually very little disagreement” (Wilber, 2007, p. 23-24). Tacit knowing includes the same definition given to intuition by psychologists and philosophers from many sociocultural perspectives. They include the quality of immediate, unmediated knowledge or unconscious way of perceiving/knowing (Birgerstam, 2002; deLaszo, 1990; Jung, 1971; Osho, 2001; Polyani, 1966; Schulz, 1998).

Focusing on an unconventional research interest, at least from a western perspective, I considered grounding my work in conventional methodology, such as a mixed methods study, using quantitative data from hundreds of Myers-Briggs Type Indicator tests (which scores how individuals experience the world through thinking, sensing, feeling, and intuiting). I have easy access to these. From “Intuition, Imagination, and Creativity,” a course I taught at Lesley College, I have dozens of student essays on intuition. That would give me concrete data, as well as dozens of stories. But I did not feel satisfied with this approach.

“Maybe I’ll design my research around case studies of how college students connect head and heart to find a major or vocation that really matters to them.” This question, too, lacked personal meaning. I was proceeding based on what would be acceptable, working *on* others, not what was *calling* to me. *Calling* being the optimal word!

I speak of a *call* as a big intuitive message, much like in those indigenous cultures where big dreams are seen as different than ordinary dreams (Jung, 1964); both providing messages from a deep place within the dreamer, however big dreams being transformative, life changing. *Calls* can be big intuitive messages, providing a sign or direction to go in a particular situation. Husserl (1999) refers to the distinction between a sign that simply

indicates something without necessarily implying any meaning, and a sign that carries with it something deeper (p. 183). A *call* carries with it something deep – a big intuitive message.

The nature of intuition is more fully discussed in the Introduction section.

Heuristic Research: Origin and Application

Echoing my own thoughts, Glesne writes, “I wanted to do research *with* and not *on* others” (2006, p. 2). Heuristic research provides such a lens. Heuristic research is an offspring of Edmond Husserl’s phenomenology (Husserl, 2008). The process of heuristic research was developed by Clark Moustakas as a way to make meaning of the phenomena of loneliness. I see it as a way to make meaning of the phenomenon of *calls*.

“The phenomenological process...does not involve a researcher who is striving to be objectivistic, distanced or detached. Instead the researcher is fully involved, interested and open to what may appear. Researcher subjectivity is prized and intersubjectivity is embraced” (Husserl, 2008, p. 3). Husserl became “fully involved” in the question of internal stability, “a means to achieve the inner harmony [he] longed for” (Sanchez, 2007, p.377). Moustakas longed to understand the phenomenon of essence of loneliness. It is the essence, or telos, of *callings* that I became fully involved in.

To provide the background for why I chose heuristic research, I discuss my discovery of this methodology, followed by an examination of the works of William Perry, Michael Polanyi, Abraham Maslow, and Eugene Gendlin who influenced Moustakas. Then I provide an overview of heuristic research’s six phases (initial engagement, immersion, incubation,

illumination, explication, creative synthesis). Finally, I discuss some of the limitations of heuristic research.

For over twenty years I grounded myself intellectually, doing well by all outside accounts, but I was dancing around, never with, what really mattered to me. As with the following story by Levoy (1997), I put up a good fight but the power of a *call* eventually won out.

I once saw an eagle drop like a stone into the blue-green water of a bay in the Sea of Cortez. For the better part of minute, he thrashed around violently on the surface, rising a little and then, it seemed, being yanked back down, sometimes nearly underwater. Finally he rose, clapping his wings loudly against the water, and lifted out a fish almost as large as himself, carrying it off to a cliffside nest... Whatever lives beneath the surface will usually put up a fight to stay there, and this goes for some of the wildlife we're likely to encounter in diving into our own pasts. (p. 175)

I participated in groups that played on the surface, often breaking just beneath the surface when discussing questions such as passion in work, creativity, authenticity, and *calls*. "From what rests on the surface one is led into the depths" writes Husserl (Welton, 1999, p. ix). I went below the surface, discovered a passion for understanding bigger questions about consciousness and intuitive ways of knowing, honored that passion, returned to school to study transpersonal psychology, and found a path that allowed my inner voice to quiet down for a while. A *calling* doesn't need much down time, and it never stops speaking up. "Callings keep surfacing until we deal with them" (Levoy, 1997, p. 34).

A recent wakeup *call* came when I was considering my doctoral work. I could do a project that would be neat and clean, giving me interesting data and analysis. I could simply use all the Myers-Briggs scores, papers, surveys, and student records that I had available to me. I could satisfy the requirements of the external world, while remaining unsatisfied within, however as Levoy (1997) writes, “most people settle...by giving up on themselves and choosing approval rather than authenticity...What happens then, says Maslow, is that our center or gravity is in ‘them’ and not ourselves (p. 195).”

After reading an article on intuitive inquiry, by Rosemarie Anderson (2002), my curiosity about alternative research methods and methodologies surfaced. I called Anderson. We spoke of her work and that of Moustakas. I was drawn to his story and the process of heuristic research.

In heuristic research each researcher has a theme or question asking to be witnessed and explored. For Moustakas this theme was loneliness. His relationship with loneliness coupled with his interest in tacit knowing, meaning making, psychology, and phenomenology led to the development of heuristic research. Moustakas (1990) writes:

Unlike phenomenological studies in which the researcher need not have had the experience (e.g., giving birth through artificial insemination), the heuristic researcher has undergone the experience in a vital, intense, and full way...Heuristic inquiry is a process that begins with a question or problem which the researcher seeks to illuminate or answer. The question is one that has been a personal challenge and puzzlement in the search to understand one’s self and the world in which one lives. The heuristic process is autobiographic, yet with virtually every question that matters personally there is also a social – and perhaps universal – significance. (p. 27)

In heuristic research, the researcher first acknowledges her story, such as the nature of a *call*. She then engages in the six previously mentioned phases of the process. These phases allow her to view the story, question or theme from different perspectives. New ideas and knowledge about the question may evolve as clusters of meaning surface.

“The root meaning of heuristic comes from the Greek word *heuriskein*, meaning to discover or to find” (Moustakas, 1994, p.17). It is linked with the term *eureka* which the mathematician Archimedes coined after instantaneously realizing the nature of buoyancy. A eureka discovery is often referred to as an insight. Heuristic research draws upon intellect coupled with insightful discoveries.

Abraham Maslow, Eugene Gendlin, Michael Polanyi and William Perry were influential to Moustakas’ development of the methodology he called heuristic research. In addition, the philosophy of Edmund Husserl, founder of phenomenology, will be woven throughout this paper, much like his ideas are woven throughout the ideas of Polanyi, Perry, and Moustakas.

The scope of this paper does not allow for indepth discussions of these individuals’ work. However, my intention is to bring into the paper the key ingredient each contributed to Moustakas’ development of heuristic research.

Edmund Husserl. Husserl, known as the founder of phenomenology, was considered by some to be an internalist due to his belief that “mental states depend for their

content upon nothing external to the person whose states they are” (Zahavi, 2004, p.42).

Moustakas’ interest in the internal state of loneliness drew him to Husserl’s work.

Husserl considered the following important to address in doing research: the process of epoché, or bracketing one’s personal judgments and perspectives; reduction in order to see anew an object or experience after acknowledging the impact of perspective and interpretation; and, reflexivity or the process of reflecting on the personal impact this new meaning has on the researcher. According to Husserl, the researcher “slides between striving for reductive focus and reflexive self-awareness; between bracketing pre-understandings and exploiting them as source of insight” (Finlay, 2008, p. 1). Finlay goes on to describe that for Husserl the process of reduction allows the researcher to undergo personal transformations, to view a question or experience from a new angle.

The “phenomenological attitude” involves a radical transformation in our approach where we strive to suspend presuppositions and go beyond the natural attitude of taken-for-granted understanding. It involves the researcher engaging a certain sense of wonder and openness to the world while, at the same time, reflexively restraining pre-understandings. Most phenomenologists would agree that this stance – or perhaps more accurately *process* – is one of the more (if not *the most*) significant dimensions of phenomenological research. [italics in the original] (Finlay, 2008, p. 2)

As discussed below, in the phases of heuristic research, it is important to suspend or bracket presuppositions and reflect on the new understanding of the phenomena being studied. This is integral for entering into a “new *way of being*” (Finlay, 2008, p. 6).

Husserl was also interested in the relationship of language to describe an experience compared to the actual experience. For example, is my relationship with the word *water* different than my experience of it? I might describe it as wet while my experience and associations with it might include vast, green, refreshing, freezing, fear, joy, boats, fish, etc. If I were studying water I would want to bracket my experience and pre-assumptions because they are not necessarily true of all experiences of water or for the true nature of water. These preassumptions, according to Husserl, are entirely internal. This process of reduction removes what is perceived, leaving only what is required to view the experience or object at its core truth or being. Using reduction and reflexivity, a researcher views the experience, i.e., of water, in a new way. This new way may enable new ideas, meaning, or knowledge to be discovered. It was the exploration of these relationships that opened the door of phenomenology to Husserl (Welton, 1999).

In order to make meaning of the experience of *calls*, I considered some Husserlian concepts. These concepts have become common considerations for qualitative research in general. First, the researchers must bracket personal perspectives, judgments and beliefs, in my case about *calls*. For me these include my belief that *calls* exist for everyone, and that they come to us from a deep inner voice or intuitive way of knowing. I believe they are uniquely personal but universal at the same time, and if ignored, they pursue us and resurface again and again. Through the heuristic research process, reduction and reflexivity are repeated until they can't be, or until one can "suspend the natural attitude, including the distinction between objective and subjective" (Roubach, 2004, p. 196). In other words, the researcher is continually breaking down assumptions and reflecting on this process until all

subjective influences are acknowledged and uncoupled from the core, objective nature of the experience being studied.

Abraham Maslow. Maslow created a schema of human experiences ranging from basic physiological needs (i.e., food, oxygen) through a series of physical needs (i.e., shelter), each increasingly less physical, eventually leading to emotional and psychological self-actualization. He believed that we all strive to move past and through the basic needs, to feel safe, to feel part of community, to ultimately arrive at becoming “fully human, everything that person *can* become” (Maslow, 1999, p. 169).

The ingredient Maslow added to heuristic research is the innate need to move from acquiring basic needs towards becoming “fully human” which includes the desire for self-actualization. During the initial engagement phase of heuristic research, desire to understand more fully the nature of a recurring emotional or psychological question is acknowledged. We “discover an intense interest, a passionate concern that calls out to the researcher, one that holds important social meanings and personal, compelling implications” (Moustakas, 1990, p. 27). This moves us beyond acquiring our basic physical, external needs to an interest in an inner world where *calls* reside and speak out to be heard. But, as Levoy writes, “If we don’t listen, the *callings* go unnoticed, and we are the worse for it. Our lives become absurd – *ab-surdus* meaning to be absolutely deaf” (p. 18).

Michael Polanyi. Polanyi is best known for his work as a chemist and mathematician. He viewed complete objectivity as a delusion, and a false ideal (Polanyi, 1962, p.18). After reading several of his texts, including *Tacit Knowing, Personal*

Knowledge: Towards a Post-Critical Philosophy, and Knowing and Being: Essays by

Michael Polanyi, I do not presume to grasp his theories in chemistry and mathematics.

However, I fully understand and appreciate his intention to “show that complete objectivity as usually attributed to the exact sciences is a delusion and is in fact a false ideal” (Polanyi, 1962, p.18). Polanyi (1969) wrote extensively about tacit knowing:

In science the element has been called intuition. The purpose of this paper is to indicate that the structure of scientific intuition is the same as that of perception. Intuition, thus defined, is not more mysterious than perception—but not less mysterious either...” (p. 118)

Tacit knowing is experienced when we know something even though we cannot tell how we arrived at that knowing; explicit knowing is when we can easily reconstruct and explain something. Turning from his work as a chemist to that of a philosopher, Polanyi “reconsider(ed) human knowledge by starting from the fact that *we can know more than we can tell*. This fact seems obvious enough; but it is not easy to say exactly what it means” (Polanyi, 1966, p. 4).

We have here reached our main conclusions. Tacit knowing is shown to account (1) for a valid knowledge of a problem, (2) for the scientist’s capacity to pursue it, guided by his sense of approaching its solution, and (3) for a valid anticipation of the yet indeterminate implications of the discovery arrived at in the end. (Polanyi, 1966, p. 24)

Barbara McClintock, Nobel Prize winner, provides an example of using intellect coupled with tacit knowing. McClintock was immersed in the field of genetics. Using corn as

her subject she would “have a feeling for every individual plant” (Keller, 1983, p.198). At times she would get frustrated, return to sit under giant eucalyptus trees to meditate and wait. “When she felt she was ready, she returned to the microscope, and the chromosomes were now to be seen, not only by her, but, thereafter, by others as well” (Keller, 1983, p. 148).

She didn’t know quite what she did as she sat under those trees. She remembered she “let the tears roll a little,” but mainly, “I must have done this very intense, subconscious thinking. And suddenly I knew everything was going to be just fine.” It was. In five days, she had solved the problem she had been working (Keller, 1983, p. 115).

This “very intense subconscious thinking” is tacit knowledge, an intuitive message. McClintock may not have been able to describe how she knew what she knew, nonetheless it led to a Nobel Prize in medicine, work that “would eventually change the face of genetics, but few could then perceive the extent of the transformation that was in store” (Keller, 1983, p.112). McClintock was open to hearing inner guidance. She listened. I also believe as McClintock does that, “We’re after something that lies beneath all that noise, something literally unthinkable, something that is not so much communication as communion – a felt language, a silence filled not with emptiness but with presence” (Levoy, 1997, p. 28). Eugene Gendlin also considered the presence of a felt language, or felt sense, essential to wellness and making meaning of our experiences.

Eugene Gendlin. Gendlin (1962/1981), a psychologist, worked closely with colleague Carl Rogers. Rogers is well known for his person-centered approach to psychotherapy (Kirschenbaum & Jourdan, 2005). Together Gendlin and Rogers studied videotaped therapy sessions and found that clients who connected an emotional feeling with

a physical sense were more likely to have successful therapeutic outcomes. For example, if a client states she senses a tightening in her chest (an inner felt sense) when describing an emotional issue, she was more able to deal with the therapeutic issue. From their findings, Gendlin developed a technique called *Focusing*. Bringing awareness to, or *Focusing* on, the physical feeling (i.e., the tightening in the chest) creates an opening for the emotion to be imaginatively moved outside the body through visualization (Klagsbrun, 2006). During my initial interview with Levoy, he said:

Here's the really important question – where do you feel alive and where do you feel dead in the course of a week? It's much easier to connect with the alive or dead feeling. We all know it. We aren't able to talk about the inner authority or intuitive self, but we all know when we feel alive or dead inside.

This is similar to the felt sense which Gendlin refers to when *Focusing*. Logical and literal interpretations of emotional or mental issues are similarly set aside during the creative synthesis process in heuristic research. We are asked to connect with our inner authority, where we feel most alive.

William Perry. William Perry's research on undergraduate students included how they position themselves within the college experience and learn to think for themselves. He developed a nine stage scheme ranging from Position 1, or Basic Duality, to the highest position, Position 9, at which point students engage in critical thinking and make decisions based on internal versus external drives (Perry, 1999). His research suggested that in order for college students to make meaning out of their undergraduate experience, they need to be

in one of the upper developmental positions. They must be able to make a special type of personal commitment:

We have called it a personal commitment in a relative world. By this we mean to distinguish it from commitments which have been taken for granted to the extent that they have never been questioned, never compared to alternatives which could be “thinkable” to the self. (p. 38)

These personal commitments enable the student to make meaning of the experience. Like Perry, Moustakas was interested in how individuals make meaning of experiences and what it takes to honor inner, along with external, authority. Like me, Perry drew upon the undergraduate experience, specifically how to strengthen a connection to an inner voice, engage in personal commitment, and learn to follow its authority.

An unexpected, but compelling argument developed during the data review, or illumination, phase of my work. This argument relates to Perry’s work on developmental readiness of college students to hear and step into a *call*, a question Levoy talked about in my first interview with him. Levoy said that listening to a *call* was not undergraduate students’ forte, that they were not in a time of strong inner direction, but were more likely to listen to the voice of reason (or their teachers, parents), and that the deck is stacked against undergraduate students easily responding to a *call*. Levoy also addressed the question of whether or not a *call* needs an environment of tension or conflict to strengthen its voice. Mezirow’s disorienting dilemma came to mind at this point. Maybe “friction is a fundamental property of nature and nothing grows without it” (Levoy, 1997, p. 8). In the

illumination chapter I address the coupling of developmental readiness and the questionable need for internal friction for *calls* to be followed.

Phases of Heuristic Research

Initial engagement. “During the initial engagement, the investigator reaches inward for tacit awareness and knowledge, permits intuition to run freely, and elucidates the context from which the question takes form and significance” (Moustakas, 1990, p. 27). This was both the easiest and hardest phase for me. It was easy in that the question, or the idea of a *call*, had been a constant whisper in my mind for as long as I can remember. It was hard because it felt self-indulgent and too vulnerable to focus on something so personal. Moustakas, however, held that a compelling personal question would inherently hold social relevance, highlighting the universal quality of the individual experience. I believe this to be true, as evidenced by stories about authenticity and *calls* I hear from my students, the stories voiced through the hundreds of emails and letters received by Levoy and shared with me from *Callings* readers. As Levoy said, “I began to realize that beneath the stories of our lives are other stories, other lives, and great archetypal armatures on which all our individual stories are hung” (1997, p. 137).

In order to provide more depth to the exploration of intuition and *calls*, and to examine the universality of the phenomenon, I invited a college student to parallel the immersion process with me. KT, a twenty year old, graduating senior, describes herself as “very intuitive” (in fact she scored as high as one can on the Myers-Briggs Type Indicator),

she is academically strong, socially well connected, and has a supportive network of friends and family.

Lesley University's Internal Review Board approved student involvement in this research (Appendix C). She was involved from start to finish; her involvement included interviews, journaling, data collection, meetings with Levoy in North Carolina, data analysis, and a creative synthesis to end the project.

Immersion. According to Moustakas (1990), the immersion phase is just what it implies, total immersion in the question or theme of interest:

The immersion process enables the researcher to come to be on intimate terms with the question – to live it and grow in knowledge and understanding it....Virtually anything connected with the question becomes raw material for immersion, for staying with it, and for maintaining a sustained focus and concentration...spontaneous self-dialogue and self-searching, pursuing intuitive clues or hunches, and drawing from mystery and sources of energy and knowledge within the tacit dimension. (p. 28).

During the immersion phase of my project (January through April 2009), I collected the following data: an initial phone interview with Gregg Levoy; five interviews with KT; a trip to North Carolina to meet Gregg Levoy; reading Levoy's book for the sixth time (noting dates and situations when I'm pulled to particular passages); xeroxing 305 pieces of correspondence sent to Levoy from his readers; and, collecting KT's journals. At this phase,

my intention was not to categorize, make sense, or process any of the data unearthed in the immersion phase but simply to collect it before moving onto the incubation phase.

The question of developmental readiness coupled with a disorienting dilemma became important considerations as I began reviewing the data. A significant disorienting dilemma for KT did in fact become part of the discussions and considerations of the nature of *calls*. The issues of developmental readiness and disorienting dilemmas will be further discussed in the Explication section.

Incubation. “Incubation is the process in which the researcher retreats from the intense, concentrated focus on the question” (Moustakas, 1990 p. 28). I see this phase, also referred to as indwelling, as similar to the Buddhist process of letting go, allowing time for the planted seed, the question or theme, to be nourished.

I was anxious about my ability to really let go of data and my relationship with the process, but I did put it all aside from May 2009 through December 2009. This process allows “the inner workings of the tacit dimensions and intuition to continue to clarify and extend understanding on levels outside the immediate awareness” (Moustakas, 1990, p. 29). Polanyi’s work with the concept of tacit knowing is evident in this phase – what is outside our immediate awareness is allowed to incubate. Through incubation a new way of looking at a phenomenon might emerge. “We’re after something the lies beneath all that noise, something literally unthinkable, something that is not so much communication as it is communion – a felt language, a silence filled not with emptiness but with presence” (Levoy, 1997, p. 28).

After a period of incubation, such presence can be seen in the experiences described earlier – that of McClintock’s discovery of chromosomes. She may have gone through several heuristic phases – immersion (into the field of genetics), to incubation (meditation under the eucalyptus trees), to illumination (discovery of new knowledge).

We need to teach ourselves to sit quietly and listen, just listen, long enough to leave a decent indentation on the couch. If all our moments are filled with words and thoughts, with noise however joyous, then when it comes time to convey our deepest intuitions, when our lives demand guidance from within, we’ll be speechless.

(Levoy, 1997, p. 27)

Illumination. “The illumination process has been continually recognized in creative discoveries from the earliest thinkers on science...” (Moustakas, 1990. p. 30). During this phase the heuristic researcher, much like those doing most phenomenological studies, begins to search for “clusters of meanings” (Creswell, 1998, p. 55). Moustakas refers to this as a time when the researcher becomes aware of patterns or qualities that are important to the question or theme, bringing a new and unexpected meaning to the experience of focus, whether that focus is on loneliness, tacit knowing, or *calls*.

Glesne (2006) refers to the work of Wolcott who “discusses *description*, *analysis*, and *interpretation* as three means of data transformation, or of moving from organization to meaning” (p. 164-165). Glesne elaborates on each of these steps in manipulation of data in the following way:

- Description means careful review of the data as it was collected without preconceived notions of what is there. It is a fishing expedition. You don't really know what's in the water until you cast your net, and wait!
- Analysis begins by creating clusters of meaningful categories, like organizing the fish according to identifying factors (size, type, where they were found, time of day caught, etc.).
- Interpretation entails making meaning of what was caught through the previous steps, and possibly reclustered and then reinterpreting the data.

Glesne notes that the type of analysis completed will ultimately depend on what is collected and the purpose of the study, but these three basic steps will provide a way to begin sorting through data. These steps are embedded in the heuristic research; description during the immersion phase, analysis during the illumination phase, and interpretation or meaning making during the explication phase.

During this phase I transcribed taped interviews and reviewed all the data (KT and Levoy interviews, KT's journals, Levoy's letters and workshop materials), and I acknowledged preconceived notions while remaining open to unforeseen clusters of concepts. I reviewed all the data five times. Initially I just read through the materials without making notations, categorizing, or highlighting.

The second time through the data I grouped ideas and concepts as they emerged. The broadest categories included data sources such as emails/letters, journals interviews, and workshop feedback. I then categorized these by total numbers in each category, response by gender, response by self-identified college students, and response by self-identified career changers (primarily individuals reporting mid-life career changes). Several other

subcategories were acknowledged, such as geographical location, but not identified as important in final analysis.

In the third review of data, I highlighted specific recurring themes, or clusters, within each of the broader categories noted above. These more specific clusters included how often the following concepts presented: listening, being in crisis, developmental readiness, inner knowing or intuition, and contemplative practice.

Then, I looked for topics within each theme. For example, within the theme of intuition I found references to an inner voice, a familiar sense of knowing, inner intelligence, and having a gut feeling. In the final review of the data, I created sub-groups of these final topics. It was unproductive to go deeper with the phenomenological portion. I did, however, create a case study from a subset consisting of KT's data.

Explication. The explication phase, typically referred to as the analysis section in dissertations, involves fully explaining what has been discovered in the previous phases, “to fully examine what has awakened in consciousness, in order to understand the various layers of meaning....In explication a more complete apprehension of the key ingredients is discovered” (Moustakas, 1990, p. 30-31). Moustakas frames this phase as the point at which the pieces come together to form a more complete picture of what has been discovered. I moved beyond the various parts, or data, to explain the phenomenon in terms of the meaning that has surfaced. Moustakas reminds us that “meanings are inherent in a particular world view, an individual life, and the connections between self, other, and the world” (1990, p.30), and personal perspectives are noted within the analysis. Final analysis of this data can be found in the Explication section.

Creative synthesis. The final phase in heuristic research is an artifact (for example a poem, story, or drawing) for synthesizing the researcher's experience. The importance, as mentioned above, is in using various ways of knowing to explain or show what has been discovered.

The researcher in entering this process is thoroughly familiar with all the data in its major constituents, qualities, and themes and in the explication of the meanings and details of the experience as a whole. The creative synthesis can only be achieved through tacit and intuitive powers. Once the researcher has mastered knowledge of the material that illuminates and explicates the question, the researcher is challenged to put the components and core themes into a creative synthesis. (Moustakas, 1990, p. 31)

Again, shifting from logical data collection and review to what Barbara McClintock called a "very intense, subconscious thing" (Keller, 1983, p. 112) happens several times in the heuristic research process including during this final phase. It is possible that ideas or discoveries not unearthed in other phases will surface here.

Limitations of Heuristic Research

Heuristic research is not without its limitations and critics. Concerns range from validity of a process that uses the researcher as the primary subject, to whether or not Moustakas himself followed what he stated as his intention (Sela-Smith, 2002). As a reminder, heuristic research revolves around specific phenomena, data, and analysis of intense interest to the researcher. According to Sela-Smith (2002), Moustakas did not follow his own protocol because he included interviews of others experiencing loneliness, the focus

of his research. Her critique was that the process became diluted when Moustakas spoke of the universality of an individual's question or experience. After speaking with Sela-Smith, I understand her methodological shift and approach but believe heuristic research as Moustakas laid it out works well for my proposed research question.

That question relates to college students, integrating tacit knowing with intellect, the possible role of contemplative practice in such integration, and whether or not that integration helps accessing meaningful life direction or *calls*. Because I am not an undergraduate student, and I felt it important to include the undergraduate perspective, I invited KT to be a co-researcher. Sela-Smith might argue that KT's influence would shift some of the focus from me and therefore dilute the pure intention of heuristic research. I disagree. KT's insight and willingness to share her experiences were invaluable, adding coherence and an important voice to the data.

Other concerns, generally found in qualitative research, may seem exaggerated in heuristic research: for example, subjectivity and its relationship to validity. Due to the nature of the self as subject in heuristic research subjectivity becomes transparent, a welcome partner in the process. Discussing self as subject in research, Glesne writes:

Some feel lost in the sifting sands of postmodern perspectives, their footing undone.

Others see new possibilities take form – the need, for example, to explore self as researcher in relationship to research participants; to create interdisciplinary composites; to seriously take on the lenses of other ways of looking at the world, whether these ways be a spirit trance or astrophysics; and to create new forms of

representing what is learned, forms that reveal emotions and feelings. (Glesne, 2006, p. 18-19)

“Objective reality can never be captured” (Denzin & Lincoln, 2005, p. 5), all qualitative research is reflexive. When doing any research the question of reflexivity, or subjectivity, must be addressed. Reflexivity is woven into every fiber of heuristic research and was an important element in my work.

For those who have taken the ‘reflexive turn’ in qualitative research...the implications are always present, of working on the edges of, and constantly having to engage with, dominant understandings of what constitutes ‘proper’ research. (Ribbins & Edwards, 1998, p. 4)

Glesne (2006) defines four categories of participation in research: observer, observer as participant, participant as observer, or full participant (p. 50). Heuristic researchers fall under the category of full participant and, “Doing so is not as easy as first perceived because the researcher must manage two, sometimes conflicting, roles” (p. 50). “In a sense, you conduct two research projects at the same time: one into your topic and the other into your self and, paraphrasing Reason (1994), the ground on which you stand” (Glesne, 2006, p. 126).

There was the danger of overlooking or avoiding important data due to my relationship with KT or my relationship with the research focus. If the question is one with strong emotional concerns, “you must be able to distinguish the line between your passion to understand some phenomenon and your over involvement in very personal issues that need resolution” (Glesne, 2006, p. 23). The important distinction between doing research on a

personal interest versus a personal emotional issue is significant. The latter holds much at stake for the researcher, the former is an act of discovery without direction or particular outcomes being sought. I feel confident that the research was conducted purely from a sense of interest and curiosity. Although the phenomenon of *callings* has been an intimate theme in my life, the heuristic research process actually freed me from its constant companionship in my thoughts.

Familiarity with the theme was another possible concern. The issue of being overly familiar with the topic could bring “preformed assumptions about what is going on” (Glesne, 2006, p. 31). This is often referred to as conducting backyard research. Again, given the personal nature of heuristic research, it would be impossible not to use what is familiar. It is what the researcher does not know about the familiar theme, what is beneath the recurring concept, that creates the stage for good research.

To address some of these limiting factors of heuristic research, I thought it important to bracket and reflect on personal ideas and feelings – which I have done throughout this process. According to Kim Etherington (2004), reflexivity is:

...an ability to notice our responses to the world around us, other people and events, and to use that knowledge to inform our actions, communications and understanding. To be reflexive we need to be *aware* of our personal responses and to be able to make choices about how to use them. We also need to be aware of the personal, social and cultural contexts in which we live and work and to understand how these impact on the ways we interpret our world. (p. 19)

To further address limitations suggested of qualitative research Patton (2002) suggests triangulation.

Triangulated reflexive inquiry provides a framework for sorting through these issues during analysis and report writing – and then including in the report how these reflections informed your findings. (p. 495)

Triangulation helps reduce bias related to just one data source. I triangulated data from KT's interviews and journals with data from Levoy's letters and interviews. Data triangulation allowed two unexpected significant considerations – developmental readiness and disorienting dilemmas – to become elements in the *callings* discourse.

Examples can be found of how other researchers (Telles, 2000; Turner, Gibson, Bennetts, & Hunt, 2008; Watford, 2008) handled perceived limitations of heuristic research.

Watford (2008) describes being influenced by how others might view her work:

What else did I learn? I learned that I can courageously and heuristically explore my experiences and that I do have something to contribute. Yet after years of struggling to reach this academic plateau, my fear of being judged as unscientific and unscholarly, and not receiving my master's degree, did influence the final product. (p. 352)

She does not describe how her thesis was changed by her uncertainty, just that she questions whether or not she was “overpreoccupied with rigor to the extent that I forgot my own subjectivity in deciding what was research and what wasn't?” (p. 353). I question whether or not she dealt with the possible limitations of subjectivity by minimizing it.

Turner et.al. (2008) studied the impact of clinical psychotherapy training on two trainee therapists. Much like my work, students were invited to explore personal change by engaging in the heuristic research phases. Turner et al. dealt with the question of primary researcher distraction previously described by Sela-Smith. Sela-Smith (2002) criticized inclusion of co-researchers in the heuristic research process as moving outside the intent of heuristic research's primary purpose. That primary purpose is the exploration of the researcher's personal question. Turner et al. (2008) suggest diminishing such distraction by avoiding contact between co-researchers while data is being collected (p. 175). I could not avoid contact with KT as she was providing ongoing interviews regarding her current experiences with contemplative practice, inner ways of knowing, and her sense of *calls*.

Telles (2002) used a combination of research methodologies, including heuristic research. This author does not cite any possible limitations in the heuristic process, but does weave it into a "biocolage of qualitative methods" and states her decision to use these methods to allow subjectivity to surface (Telles, 2002, p. 251).

These three examples of heuristic research in practice show variation in the ways researchers have used the process, woven the process into other qualitative models, and dealt with its limitations. Making note of its limitations, and acknowledging their potential impact on my research, strengthened my resolve to proceed with rigor while honoring the intention of heuristic research.

Data

Data was collected from January 2009 through April 2010. Data included interviews, journals, and correspondence. Interviews were between myself and my co-researcher KT, or myself and Gregg Levoy author of *Callings: Finding and Following an Authentic Life*. Additional interviews were conducted with the three of us – KT, Gregg Levoy, and myself. I also reviewed my notations throughout the *Callings* book, many referring to my own undergraduate experience and *calls*.

Interviews

Glesne (2006) describes three types of interviews: structured, open, and depth probing. Structured interviews have “specific questions”, open interviews require the interviewer be “prepared to develop new questions to follow unexpected leads” and depth-probing interviews to:

pursue all points of interest with variant expressions that mean ‘tell me more’ and ‘explain’. The intent of such interviewing is to capture the unseen that was, is, will be, or should be; how respondents think or feel about something; and how they account for something. Such a broad-scale approach is directed to understanding phenomena in their fullest possible complexity. The elaborates responses you hear provide the affective and cognitive underpinnings of our respondents’ perceptions. (p.104)

I interviewed KT formally and informally, using open and depth-probing formats. Formal interviews included four audio taped interviews in 2009 (February 16, March 6, April 7, and May 4). There are 11 hours of interviews resulting in 35 transcribed pages. In addition,

there were a total of six hours of informal interviews with KT in 2010 (January 24, February 3, February 26, and May 4). Two informal telephone interviews were conducted in 2009 with Levoy (February 9 and 26). In person meetings were conducted in North Carolina (March 11 through 13).

Written Data

I reviewed in excess of 300 emails and letters written to Levoy in response to his work with *Calling*, as well as forty-eight pages of KT's personal journal. KT's journals focus on her undergraduate experiences and that relationship to contemplative practice, intuition, and *callings*. KT also provided her independently reviewed and written analysis of the data, which is included in the data analysis chapter. Correspondence to Levoy ranged from individuals changing careers, undergraduate students, people in the 20s to 70s, and from all over the world.

Wall's Notations from Callings

I include some of my personal notations in Levoy's *Callings* as they relate to my own experience as an undergraduate. They include my writing parallel statements from his:

Some years ago, along a country road outside of Fresno, California, on a windy spring day, a part of the invisible world was made, for a brief moment, visible to me...And I saw that what is necessary to make substance or meaning out of any of it is a receiver, somebody to receive. (1997, p. 1)

Such as:

Thirty years ago, in 1981, outside a country classroom, on a warm spring day, a part of the invisible world whispered to me...And I knew that what was necessary to make meaning out of it was a receiver, me...Yet I refused to listen.

Or from Levoy (1997):

We thus have an impressive arsenal of defense mechanisms – denial, distraction, repression, projection, procrastination – whose job descriptions are to prevent attack by the superego. They do this by blinding us to the kind of impulses – and callings – that trip the superego’s alarms, and by misrepresenting the threat of those calls, making them seem more costly and inopportune than they are, so that we’ll avoid them. (p. 194)

My notation:

Seemed the job description of my college advisor as well – to make my declaration of psychology as a major seem very costly and inopportune; and I did avoid it. My personal arsenal of defense mechanisms included denial of the most immense magnitude which was necessary in order to repress a powerful *call*.

These two examples represent dozens of my notations; all in some way referring back to my undergraduate experience in 1981.

Researcher 1: Wall’s Data Analysis

I reviewed the data five times. First, without categorizing or attempting to make meaning of the data. Next, I created broad categories for the types of data: emails and letters,

interviews, journal entries, or Levoy's presentation materials. Then read for repeating themes or clusters of meaning. Three themes surfaced and are classified as intuition, developmental readiness, and disorienting dilemmas which were then reviewed for ideas or subthemes within each theme. Finally, KT's interview notes and journals were reviewed separately for a case study. Table 1 (page 83) outlines heuristic research phases, purpose of each, and outcome from each. Table 2 (page 84) indicates quantitative breakdown of data into broad categories and themes.

Table 1: Heuristic Research Phases, Purposes, and Outcomes

PHASES	PURPOSE	OUTCOME
Initial Engagement	Determines theme to explore	Theme: <i>Calls</i>
Immersion	Data Collection	
	Levoy Correspondence	305 Emails/Letters
	Levoy Interviews	Initial Phone
		Informal Interviews in NC over 3 Days
	KT Interviews	5 Formal Interviews (6 Hours)
		35 Transcribed Pages
	KT Journals	48 Pages
	Jan's Notations from <i>Callings</i> :	
	<i>Finding and Following an</i>	Connections between notations and
	<i>Authentic Life</i>	other data.
		Quotes used to support findings and
		Creative Synthesis
Incubation	Removes Researcher(s) from	Provided a new lens from which to
	Immersion Phase	view and reflect on data.
Illumination	Search for Themes or Clusters of	Data Reviewed 5 times:
	Meaning in Data	1) Reviewed without categorizing
		2) Grouped into broad categories:
		total numbers, gender, type of
		data (emails, interviews, journals)
		3) Pulled out Themes:
		disorienting dilemmas,
		developmental readiness
		4) Reviewed for Subthemes:
		no relevant subthemes surfaced
		5) Reviewed for Case Study
Explication	Analysis of Data	New Variables Surfaced
		Importance of Disorienting
		Dilemmas and Developmental
		Readiness in acknowledging and
		following a <i>Call</i> .
Creative Synthesis	Finalize Process for Researcher(s)	Poems and a Collage

Table 2: Data Categories and Themes

CATEGORIES→→→	Emails and Letters	Interviews	Journals	GL Materials	Totals
	N = 107	N = 15	N = 15	N = 2	N = 139
	80 (W), 20 (M), 7(?)	15 (W), 10 (M), 0?	15 (W) All KT	2 (M) All GL	105 (W), 27 (M), 7 (?)
THEMES ↓↓↓↓	Total W M ?	Total W M ?	Total W M ?	Total W M ?	Total W M ?
<i>INTUITION</i>	21 13 3 5	4 3 1 0	7 7 (KT)	1 0 1 (GL)	33 23 5 5
<i>DEVELOPMENTAL READINESS</i>	6 4 0 2	5 4 1 0	2 2 (KT)	0 0 0 0	13 10 1 2
<i>DISORIENTING DILEMMA</i>	80 63 17 2	6 3 3 0	6 6 (KT)	1 0 1(GL)	93 73 20 0
W – Women					
M – Men					
? - Gender Unknown					
KT - Co-researcher					
GL - Gregg Levoy					

Data Categories

Intuition. There were 33 references to intuition (23 from women, 5 from men, 5 unknown). Intuition is referred to as the following:

- ‘aha’ moments
- an inner space
- liquid moments
- that place inside

- inner authority
- knowing things without knowing how
- inner connection
- nonverbal inner potential
- inner intelligence
- inner voice
- a *calling*.

There are 21 references to intuition from emails and letters from readers of *Callings* (13 from women, 3 from men, 5 unknown). There are 4 references to intuition from interviews (3 from KT, 1 from Levoy). In addition, there are 7 from KT's journals, and 1 from Levoy's presentation materials.

Developmental readiness. The work of William Perry on developmental readiness became relevant at this point. Perry's work will be discussed in more detail in the analysis chapter.

There are 13 data references to developmental readiness (10 from women, 1 from men, 2 unknown). References about developmental readiness included:

- whether or not undergraduate students are mature enough to follow a *call*
- is it too risky a time for emerging adults
- individuals might not be able to find true personality at age 17 or 18

- college students were just learning to listen to internal over external voices.

One reference is from an interview with Levoy that, “college age is not a time of strong inner direction, they are not developmentally ready, it is not their forte, they are more likely to listen to the voice of reason.” Of these 13 responses, 6 came from emails or letters referring to *Callings* (4 from women, none from men, 2 unknown), 5 are from interviews (4 from KT, 1 from Levoy), and 2 from KT’s journals. None of the 6 undergraduates who wrote to Levoy mentioned ‘readiness’ as a factor.

Disorienting dilemma. There are 93 references about conflict, tension, disorientation, or life changing situations. Of these 73 are from women and 20 from men. Of the total references: 80 are from emails or letters referring to Levoy’s *Callings* (73 from women, 17 from men, 2 unknown); 6 references are from interviews with either KT (3) or Levoy (3); KT referred to a disorienting dilemma 6 times in her journals; and, Levoy made one reference to the relationship between conflict and *callings*.

Of the total references (93) under the theme of disorienting dilemmas, I found 3 subthemes or clusters of concepts: health issues (20), being at a crossroad or transformative place in life (42), and career challenges (6).

Two other references fell under the general theme of a disorienting dilemma, the first was being a crime victim (which could be included under crossroads but wasn’t defined in that way), and the other disorienting dilemma was having an addiction (which could have been included under health issues but was described in a very different manner than others under that cluster).

The coupling of a disorienting dilemma with intuitive *calls* became an unexpected but important relationship in the outcome of this research. This relationship will be discussed in detail in the analysis chapter, but some examples are provided below.

Health issues (physical, emotional, mental) referenced independently and also referred to in association with inner knowing or *callings* included those from individuals with cancer, Lyme's disease, back pain, anthrax poisoning, mysterious physical symptoms, general physical discomfort, and having a brush with death. The cluster of individuals who referred to a crossroads or transformational place in life coupled with an inner knowing or *calls* also made statements about needing to release a smothering soul, having days of emotional turmoil, being enlivened yet frightened, feelings of holy terror, being in an intense personal time, and needing to face fear of listening to a *call*. The need to face a fear in order to listen to a *call* is referenced by 9 individuals, while feeling both enlivened yet frightened by the prospect is mentioned by 5 others. In the initial interview with Levoy, he wondered what level of crisis is needed to make the shift and follow a *call*, "There is something beautiful and dangerous in that question."

KT speaks to the nature of crisis and "disparate structures" (Levoy, p.8). In her journals she writes about undergoing turbulence, shaken at her foundation (physically, emotionally, and mentally). She notes how that turbulence numbed and distanced her from the crisis she was going through, until only her "soul remained and provided the greatest gift [she] could receive – a renewed sense of self, renewed spirituality, renewed passion." As with individuals who responded to Levoy's *Callings*, KT described that fear ultimately shook the turbulence out of her.

Growth happens when we receive the turbulence, the suffering, to eventually rise through it and come out a different person. You just allow it.... I believe it was not only college that attributed to this balancing of my parts, but my brother's diagnosis....So for me, it was a *calling* to use that crisis as a reality check, for some people just going to college will help them....The crisis was part of my *calling*.

KT wrote about another issue that occurred during her first two years in college. "I had a big dilemma; I remember freshman and sophomore years. I could not understand transience...how could I share a moment with you and never see you again?" In our interviews, she spoke about how this dilemma challenged her to move into areas that frightened yet excited her – the beauty and danger Levoy mentioned. College is a time of such exciting and potentially frightening questions, as are other times of transition as evidenced by the 14 references found in the Levoy correspondence.

In my interview with Levoy he talked about being invited to give a talk at Virginia Tech almost a year (almost to the day) after the killings there. He was told "don't pull any punches – talk about mortality and how that impacts choosing a life path." This brings up the question, "Do we need something as drastic as facing mortality to motivate us to follow what matters to us?" This question relates to the third cluster of disorienting dilemmas about mid-life changers.

Notably, there are references to feeling stuck in a job or becoming unexpectedly unemployed from such jobs and now wanting to find meaningful work. According to Levoy mid-life career changers (6 respondents self-identified as such) might be engaged in finding meaningful work due to this same confrontation with reality and mortality (or aging). One

individual wrote that she was “very unhappy in [her] corporate job and could not stop the nagging voice that told [her] there was more.”

From the 300 plus pieces of correspondence reviewed, 6 were undergraduate students who attended a workshop by Levoy. Each appreciated his message but none mention disorienting dilemmas specifically. This may have been due to the fact that they attended the workshop as part of a course with the assignment. They may not have been developmentally ready to delve into the topic, or they may not have been *called* to do so.

Researcher 2: KT’s Data Analysis

KT independently reviewed the data. Her only instructions were to read the material and record anything she noted as important or recurring. In her analysis she wrote, “While reading over the book *Callings*, journal entries, recordings, and letters sent to Gregg, I found meaning in particular themes and patterns that thread throughout the information.”

She begins by stating:

I immediately thought of the work of the Belgian physicist Ilya Prigogine who was awarded the Nobel Prize for his theory of what he calls “dissipative structures, part of which contends that friction is a fundamental property of nature and nothing grows without it – not mountains, not pearls, not people....we must therefore be willing to get shaken up, to submit ourselves to the dark blossoming of chaos, in order to reap the blessings of growth.” The concept of friction has been profound throughout this research experience. It began as an oppressive force that caused disorientation, confusion, essentially being thrown off track into an unknown pit. It then

transformed into intensity, as though this friction slowly opened up new holes in perception and therefore causing new feelings never before experienced (intense ability to be in the moment). Once the intensity subsides the meaning begins to arise and incubate from the experience. Closure is made via dreams, expectations, and new shifts on the meaning of life. The person who re-enters the world post-friction is new however they are reconnecting with a childhood essence that is more incandescent and easier to access.

Then KT describes the patterns she found. These include themes around friction, intensity, meaning making, connecting to essence, path verses outcome, *callings* from dreams, facing mortality, and intuition or *callings*. She did not categorize nor include quantitative data. For each pattern she included examples from our interviews or her journals, some of which I've noted below.

Friction. "My thoughts are swimming around, going at such a fast pace, that I become flighty-like in the external world." "But the problem is it's just like something where you feel a loss of control." "So for me, maybe I needed something to really shake me out of the depths and face a new reality."

Intensity. "I don't know, it's a real liveliness about myself and although that feeling doesn't last really long, I believe it's happening for a reason." "I'm just feeling really expressive where before I felt like I was taking in a lot, now the output is starting to tap in. I think I've been waiting for that."

Meaning making. "There has been some change-like embracing change instead of being of being afraid of it. I liked the security of knowing that something would last forever;

like if I'm going to be friends that this is for good, and I feel I have really overcome that." "I feel that this has helped me embrace the changing parts of me."

Connecting to essence. "It's the same feeling I got when I was a child. I think of it as grounding, maybe a witness is a good way to describe it." "I think this part of me is very related to me following my *calling* in life."

Path versus outcome. "I feel like the *calls* are more, for me, about the path not the outcome." "One of the biggest lessons I learned this semester is how to be open to possibilities, and change, and being flexible in that sense."

Callings through dreams. "Dreams have been, for me, a very strong channel in my life through which I have received many messages and *callings*."

Facing mortality. "I was surrendering to my own mortality."

Intuition and callings. "I noticed another time where I could see the difference of my intuitive way of knowing versus a rational, logical way."

In heuristic research the process of data review is known as the illumination phase. Throughout this process, two unexpected theories became relevant to my research question. These theories are presented in the following chapter which represents the explication phase in heuristic research.

Analysis: Explication Phase of Heuristic Research

My research question explored a possible link between contemplative practice, intuition (tacit knowing), and ways in which an undergraduate student find a *call*. A *call* is defined as a meaningful, authentic vocation or life path. In addition, it is important to understand ways in which contemplative practice, intuition, and *calls* impact brain activity. How the brain is influenced by contemplative practices and intuitive *calls* is important as it relates to holistic education – the pedagogical approach relevant to my research question. Holistic education embraces whole person learning, the integration of various ways of learning and knowing. Those ways involve all parts of ourselves – brain, body, mind, and spirit.

I set out to look at my own experience with the nature of *calls*. I chose the heuristic research process to do so. The heuristic researcher focuses on a phenomenon of personal interest. My personal interest is in the nature of *calls* for undergraduate students. As mentioned, this was a time in my own life when an intuitive *call* was heightened, yet ignored. I used a phenomenological approach, reviewing all my data “to uncover the manifest interaction of significant factors characteristic of the phenomenon” (Berg, 2007, p. 287). I also wanted to capture the experience for a current undergraduate. To capture such an experience I invited KT, a graduating senior at Lesley College, to join me in the process. This led to a case study of her experience.

I reviewed the literature on trends in higher education, contemplative practice (including meditation and spirituality) in higher education, and the brain research related to intuition and contemplative practice. None of the literature reviewed made connections between these three branches of my question, but some showed ways in which any two might

connect. Those connections included research on contemplative practice and brain function, intuition and brain function, or higher education and contemplative practice.

The findings from my literature review are woven together with the results from data collected. The process became complicated by factoring in too many variables – contemplative practice, *calls*, intuition, and ways in which brain functioning relates to these. I was further interested in a specific life experience (being in college) at a time I believed *calls* become heightened. Although the case study specifically related to both the literature review (trends in higher education and brain research related to contemplative practice and intuition), the data for the larger phenomenological study came from the general population (which included some self-identified undergraduate students).

The findings are organized as follows: brief summary of literature review, phenomenological presentation from all the data, a case study with a subset of data reviewed, and finally some research limitations. In addition the terms intuition, inner voice, inner way of knowing, tacit knowing, and *calls* or *callings* were used interchangeably. For the remaining sections and chapters of this dissertation, I use intuitive *calls* to represent this inner way of knowing “without knowing how one knows” (Polyani, 1966).

Findings

Literature review summary. The literature review suggests paradoxical trends in higher education. Curriculum in higher education is moving in the direction of increased training for careers and the job market, while at the same time students are requesting more time to explore questions related to spirituality and personal growth.

Calls: A phenomenological perspective. “Within the sociological tradition, the most widely used means of data analysis is thematic analysis, a process that involves coding and then segregating the data by codes into data clumps for further analysis an description” (Glesne, 2006, p. 147). During the illumination phase of the heuristic research process two “data clumps” or themes relevant to *calls* emerged. These themes are: developmental readiness and *calls*, how intuitive *calls* surface in the midst of tension or disorienting dilemmas. At the onset of this research, I believed that intuitive *calls* were always ready to be followed. I also believed that the primary reason for not following *calls* was the challenge to quiet external pressures, and that with contemplative practice as a tool, those external pressures could be lessened. I was missing two important considerations: that there may be a developmental readiness factor in being able to follow an intuitive *call*, and that the *call* may become loudest during times of tension, stress, or some other disorienting dilemma.

As I reviewed trends in higher education, important ingredients in the nature of intuitive *calls* and undergraduates surfaced. The literature suggests that colleges and universities are increasingly pressured to focus on job readiness curriculum (Andrews, 2006; Aronowitz, 2000; Bok, 2006) while studies indicate that three quarters of entering freshman, across all majors, want to explore issues related to personal growth (Astin, 2004; Higher Education Research Institute, 2004; Lindholm, 2006/2007; Lindholm, Goldberg & Calderone, 2006). The need to explore issues related to personal growth and spirituality might be classified as the type of tension or disorienting dilemma facilitating a *call* or personal commitment to the surface. I believed that the statistics from the UCLA HERI study (Higher Education Research Institute, 2004) supported my theory that the

undergraduate experience provided the perfect time to create discourse related to following one's *call*. However, that belief was challenged during the review process of my own data.

My original perception required “what the Greek Skeptics called *epoché*, a provisional suspension of judgment about the truth or falsity of, or the belief or disbelief in, ideas until a better determination can be made” (Mezirow, 2000, p. 13). Bracketing my assumptions and bias about holistic education, intuition, and contemplative practice facilitated a shift in my thinking. Some of those assumptions noted previously include my belief that intuitive knowing is easily available if contemplative practice was included in higher education (through course options, as outside activities, woven throughout curriculum). I also believed that encouraging students to trust that intuitive voice was always in their best interest, not taking into consideration their developmental readiness. This led me to what Mezirow (2000) refers to as “*epochal*, a sudden, dramatic, reorienting insight, or *incremental*, involving a progressive series of transformations in related points of view that culminate in a transformation in habit or mind” (p. 21).

As mentioned, two concepts surfaced as relevant to connecting contemplative practice, intuition/tacit knowing, *calls*. These two concepts were Jack Mezirow's disorienting dilemma, and William Perry's developmental scheme which outlines phases of developmental readiness for undergraduates. These concepts, coupled with relevant trends in higher education mentioned, changed my perspective on the broad topic of undergraduates and following an intuitive *call*.

Developmental readiness. The concept of developmental readiness was brought into question during my research and supported by Perry's (1999) developmental scheme. Using

a Checklist of Educational Views (CLEV), he conducted research in the 1950s at Harvard University to determine nine developmental positions that undergraduates can be classified within. Each position relates to the student's self authorship or ability to critically analyze and follow their best decision making, thinking, and unique ways of knowing. Most undergraduate students' developmental readiness can be placed in positions three through six. In this range a student may understand the concept of conflicting ideas or uncertainty but relies on outer authority to sort out the uncertainty. In this range, students may be starting to trust their inner authority or connect with a personal commitment. Perry explains:

The commitment we are talking about is of a special form. We have called it a personal commitment in a relative world. By this we mean to distinguish it from commitments which have been taken for granted to the extent that they have never been questioned, never compared to alternatives which could be "thinkable" to the self....In religious life the distinction has long been familiar as the difference between simple belief and faith. Belief may come from one's culture, one's parents, one's habit; faith is an affirmation by the person. Faith can exist only after the realization of the possibility of doubt. We shall have more to say about the realization of the relation of religion to the intellectual and emotional growth of our students. We are concerned now with their experience of commitment as we have defined it....Our students experience all such commitments as affirmations of themselves. Many of our students use the terms of existential philosophy in describing them, though most do so apologetically, knowing the ease with which the jargon can take over. The feeling they describe is one of some decision, some choice among actions, values, or

meaning which comes from themselves and defines them as individuals. (Perry, 1999, p. 38-39)

In terms of my research, it might be that student positioned in the lower schematic levels may not have the developmental readiness to follow their own inner authority or develop and follow a personal commitment (intuitive *call*). Perry (1999) frames developmental readiness around intellect, comparing a student's decision to take responsibility for inner authority to "an ultimate spiritual choice" (p. 107). They may readily accept the external authority (professors, parents, supervisors) and ignore or silence their own best inner thinking and knowing. As can be seen from my personal experience, I readily repressed a strong *call* as soon as someone of authority, my advisor, questioned it. KT on the other hand seems to take the advice of an inner authority. It may have been that the disorienting dilemma she was experiencing allowed her to challenge outer over inner authority. From her writings, this seems true.

Disorienting dilemmas. I present the concept of disorienting dilemmas in the context of brain activity as it relates to contemplative practice as well as intuitive knowing. As discussed in the background chapter, the frontal lobe of the brain is influenced by the type of contemplative practice KT described. One of the responsibilities of the frontal lobe is to judge and analyze thus potentially interfering with one's ability to process intuitive messages. KT's journal writing is an example of relaxing the activity of the frontal lobe, allowing her intuition to influence the right temporal lobe. Results from functional magnetic resonant imaging (fMRI) suggest that the right temporal lobe is activated when an individual

is experiencing an intuitive message (Volz & Cramon, 2006). This is also the area of the brain influenced by negative emotions. Therefore, the right temporal lobe is active during disorienting dilemmas as well as intuitive *calls*. Some contemplative practices (for example, KT's journal writing) quiet the judgmental frontal lobe allowing the right temporal lobe to be more active. A less engaged frontal lobe, combined with a more active right temporal lobe may allow the inner authority or intuitive *call* to be heard.

An undergraduate's experience with heuristic research: A case study. I separated out and reviewed my interviews with KT along with her journal writings. I found some similarities as well as differences from the review of the data as a whole. There were two universal themes throughout the data. The first was the experience that stressful, tense, or disorienting dilemmas were motivational in listening to intuitive knowledge or *calls*. The second theme related to the developmental readiness of the individual in acknowledging and following intuitive messages. KT's disorienting dilemmas were her brother's illness (described as issues of transience or mortality by KT) and her conflict with the transient nature of friendships during her first two years of college. KT stated that both these were influential in strengthening her ability and choice to follow her inner voice.

There were unique ways in which KT described processing this inner voice. KT's use of dreams to help her give voice to tension, or turbulence as she described it, did not come through as a universal theme in the data as a whole. However, dreams have been used in many cultures throughout time as ways to process deep unresolved issues (Jung, 1964). KT also described journal writing as contemplative, a way to process and resolve such turbulence.

KT referred to the importance of balance in being able to respond to intuitive *calls*. She wrote about the balance of head and heart, of having one foot in the inner world and one foot in the outer world. She describes this balance as her “unchanging part” (Interview March 6). Along with journal writing, she wrote about how poetry and acting had been important ways in which she honors her inner world.

I learned from KT’s interviews and journals that intuitive *calls* are a process. I had always thought of *calls* as single moments in time. Witnessing KT’s involvement in a deep disorienting dilemma, and her speaking and writing about it, allowed a transformational shift in how I viewed intuitive *calls*. KT’s work suggested to me that an intuitive *call* may be more easily followed when an individual is developmentally ready to resolve the tension which often accompanies an inner *call*. Although the particulars of KT’s experience were unique to her, the nature of coupling a disorienting dilemma with shifts in a life direction appears universal.

KT also referred to journal writing as a contemplative practice. The question can be raised about whether or not such a practice allowed her to process instead of repress the feelings being raised by the “turbulence” in her life. She expressed that it did. Journal writing may have quieted KT’s judgmental frontal lobe, while the disorienting dilemmas she experienced stimulated her right temporal lobe, allowing intuitive *calls* to be processed.

The greatest lesson I learned from KT’s involvement in this study was the reminder that following an intuitive *call* is a process. It is not a single life episode. She demonstrated integrating a personal contemplative practice (such as journal writing) allows a dialogue between the inner and outer worlds; and this dialogue creates a balance in one’s life. For KT, when this balance exists she listens to and follows what truly matters to her. She follows her

inner authority. KT has been an inspirational co-researcher. Witnessing her journey, I wonder how my undergraduate experience, including the denial of a *call*, would have been different? I wonder if I'd engaged in a contemplative practice, or other way of exploring my intuitive nature, whether I might have followed my internal authority (to study psychology and philosophy) over external pressures (to declare a major with 'good' job potential).

Research Limitations

Several limitations to this research should be discussed. First, the heuristic research process is by nature very subjective. The researcher is focusing on a personal phenomenon of interest. To counter this as much as possible steps were taken to bracket biases and to triangulate the data.

Although of personal interest, the data suggests the universal nature of intuitive *calls*. However, my data was gathered from individuals interested in the topic of *calls*. Individuals whose data was used were selective versus random. In fact much of the data came from individuals' corresponding to Gregg Levoy about his book, *Callings: Finding and Following an Authentic Life*. Although my interest revolved around undergraduates and their experience of finding and following a *call*, only 6 of the 300 plus individuals who wrote to Levoy self-identified as college students. If my question focused on any type of transformative experience, including entering college, the findings would not have changed, but in so limiting it to a specific life experience, the outcome is diluted.

I purposely chose to work with only one student. Initially this decision was based on my focus of the undergraduate experience which is thirty years past for me. I wanted a fresh lens, and to see if that lens differed from mine of so many years ago. This limits my ability

to generalize the findings to all undergraduates. Inviting other students into the process would have also taken away from the very nature of heuristic research which is to focus on the self. However the hundreds of emails and letters to Levoy served to verify the universal nature of *calls*, and to expand the lens allowing me to see the importance of developmental readiness and disorienting dilemmas in following a *call* regardless of the disorienting dilemma (crossroads in life including entering college).

The final limitation was in the case study, which examined the experience of an undergraduate student at Lesley College. Lesley College attracts student interested in self-reflection and personal growth. Although this is important to consider when reviewing the results, studies cited (Astin, 2004; Higher Education Research Institute, 2004) suggest that across all majors and disciplines undergraduate students want an opportunity to explore their personal as well as intellectual potentials.

Creative Synthesis Phase of Heuristic Research

Heuristic research concludes with a creative synthesis project. This synthesis is a creative representation of the researchers' experience of the research process. Both KT and I took the opportunity to finalize our research by independently engaging in this final phase of heuristic research. I created a visual narrative, KT a metaphorical myth. It allowed us to express our unique ways of finding closure and confirms the importance of a holistic pedagogy – allowing individualism in the making meaning process. See Appendix D and E for researchers' creative synthesis projects.

Conclusion

Studies suggest that undergraduate students are interested in exploring issues such as spirituality (HERI, 2004; Lindholm, Goldberg & Calderone, 2006), contemplative practice integration into curriculum (Holland, 2006; Sabath, 2006), and that they are developmentally ready, or approaching a readiness, to utilize an inner authority to follow a personal commitment (Perry, 1999) or *call*. Incorporating contemplative practice and intuitive *calls* into learning is foundational to holistic education. Contemplative practice and intuition impact brain activity. Negative emotions or disorienting dilemmas also influence brain activity. In considering ways of connecting undergraduates to their call, I feel it important to acknowledge cognitive, or neurological, changes and activities. Ways in which contemplative practice (for example, meditation, journal writing, yoga, being in nature, praying), intuitive *calls*, and disorienting dilemmas interact in the brain point to an important step in enhancing the undergraduate experience.

As noted above, existing studies suggest the need to incorporate spirituality and contemplative practices into higher education; my research added another dimension. Attention should be paid to the developmental readiness of college students and their ability to trust themselves and engage in a sense of personal commitment or intuitive *calls*. The work of William Perry might be used as a model for coupling the developmental readiness of students to trust their own best ways of knowing while incorporating contemplative practice into the undergraduate experience. In addition, disorienting dilemmas or stressful situations, including the experience of being in college, can be important components in moving through suggested developmental stages (Perry, 1999) towards greater self reliance and self authorship. Observing the impact that these two components (incorporating contemplative

practice and addressing disorienting dilemmas) have on students' developmental readiness and ability to follow intuitive *calls*, without compromising intellectual rigor, could create greater satisfaction and outcomes for undergraduates.

A pedagogical shift towards holistic education is not without strong barriers. The trend in higher education towards "knowledge factories" (Aronowitz, 2000) versus "learning organizations" (Bok, 2006) is prevalent. As Raelin (2007) suggests, "Perhaps the most recognized trend in college education in the United States has been the decline in the liberal arts, which purportedly prepare students for more moral and civic participation in society" (p. 51). This author supports linking theory with practice to promote a more meaningful undergraduate experience.

There is a difference between integration of theory and practice, or experiential learning, and the learning-to-earn model of higher education. Experiential learning is meant to help students explore issues of personal growth such as intuitive *calls*. According to Goyette and Mullen (2006), "Training in the liberal arts is believed to strengthen a student's character and to develop qualities such as reason, judgment, and a sense of social obligation" (p.498). Learning-to-earn strips curriculum of the personal and focuses on learning for the sake of job creation, regardless of the personal commitment, or lack thereof, a student may feel for the work.

The case study of KT's experience encapsulates the findings from the phenomenological approach. KT's willingness to engage in the self exploration demonstrated the power of integrating contemplative practice during a disorienting dilemma of immense significance, and the experience allowed her to attend to what she describes as her inner self (intuitive *call*). She suggests that this made all the difference in the meaning

she made of the experience and her own developmental growth. Witnessing KT's process (through interviews, meetings, journals, traveling to North Carolina to meet Gregg Levoy) solidified my belief in the importance of integrating contemplative practice (in coursework, through extra curricula activities, or woven throughout curricula). Educators understand the importance of strong cognitive engagement. However, focusing on just this one way of constructing knowledge and learning may limit a students' potential.

Holistic education would engage all parts of the student – body, brain, mind, and spirit. Brain studies show that the left temporal lobe is engaged when logic and reason is engaged, but we often ignore the right temporal lobe where creativity and intuition function. This right temporal lobe is also where disorienting dilemmas, or negative emotions, get processed. As educators, we can encourage contemplative practices to quiet the judgmental frontal lobe and help students address stressful, disorienting dilemmas in the classroom thus activating the intuitive part of the brain. It may be that *calls* can then be heard, and as students become more developmental sophisticated, followed.

I acknowledge the complicated picture this research has drawn, and delight in the possibilities it presents. Complications include the semantic confusion around topics such as intuitive *calls* and contemplative practices. Contemplative practices can include spirituality, being in nature, meditation, journal writing, playing music, praying, writing poetry and any number of any activities which access an individuals' inner ways of knowing. Ways of knowing also become open to various interpretations when terms such as tacit knowing, intuitive knowing, and somatic or embodied knowing, just to name a few, overlap. My decision to include brain studies further complicated the picture, but in a discourse on higher education and intuitive *calls* it was essential. Adding to this multifaceted study,

developmental readiness and disorienting dilemmas surfaced as key components. My research started out exploring the influence of contemplative practice and intuition on *calls*, but ended by looking at contemplative practice, developmental readiness, and disorienting dilemmas – their influence on each other and on undergraduates’ access to intuitive *calls* hopefully leading to more meaningful experiences and outcomes.

Methodological limitations add to this complicated picture. These limitations are fully described in the results chapter. They include the inherent subjective nature of heuristic research, selected versus random data, and backyard (Lesley College student) case study data. About subjectivity Glesne (2006) writes:

Monitoring subjectivity is not synonymous with controlling for subjectivity, in the sense of trying to keep it out of your work. When monitoring your subjectivity, you increase your awareness of the ways it might distort, but you also increase your awareness of its virtuous capacity. You learn more about your own values, attitudes, beliefs, interests, and needs. You learn that your subjectivity is the basis for the story you are able to tell. It is the strength you build on. (p. 123).

In writing about random versus non-random research subject sampling, Berg (2007) describes convenience samples which “relies on available subjects – those who are close at hand or easily accessible” (p. 43). Berg goes on to caution the use of such sampling, but acknowledges its value in some situations.

The final complicating factor, backyard research, must also be considered. Glesne (2006) states that “many researchers are drawn to studying their own institution or agency, to doing backyard research” (p. 31). She discourages this population as it presents problems such as researcher role confusion, ethical and political dilemmas, and difficulties with closure

of the study. However, if these problems are addressed, Glesne believes “backyard research can be extremely valuable” (p. 33).

Implications for Future Studies

The evidence seems clear that higher education is moving in a direction of increased career building. What is less obvious is the impact this trend has on undergraduates’ interest and pursuit of personal questions. My research lends support to other studies that suggest the importance of such pursuits. My interest is the integration of contemplative practices into higher education. It takes the question of this integration one step further by looking at one possible outcome of contemplative practices for undergraduates. That step is whether or not such integration provides the environment to allow students to hear an intuitive *call*. The missing variables in my work were twofold. First how developmentally ready a student is to listen to their inner authority, and second that disorienting dilemmas might motivate a student towards following that inner voice. Undergraduates are well positioned to hear that voice, which might strengthen all aspects of the college experience. As noted in the Higher Education Research Institute (2004) significant study:

Given the broad formative roles that colleges and universities play in our society, higher education represents a critical focal point for responding to the question of how we can balance the ‘exterior’ and ‘interior’ aspects of our lives more effectively.
(p. 2)

Before moving into the question of balancing our ‘exterior’ and ‘interior’ life aspects, we need to understand what is meant by ‘interior’. Terms such as interior lives, contemplative

practice, spirituality, intuition, *calls*, self authority, and inner authority become confusing. The semantics involved can take away from the value of the research. Although each researcher has the responsibility for operationalizing such concepts, inconsistencies in terminology can dilute individual study outcomes. Therefore, I encourage research that will minimize this diluting effect, because research into such topics as spirituality, contemplative practice, and intuitive *calls* all have the same intention – finding ways to enrich and strengthen the undergraduate experience. Fragmentation experienced from inconsistent language minimizes the impact they might have collectively.

For a larger phenomenological mixed method study, I can imagine using Perry's (1999) Checklist of Educational Views (CLEV), or similar tool, to determine developmental readiness of students, coupled with a contemplative practice experiential component. The CLEV could be given pre and post introduction of the contemplative practice. This may provide information about contemplative practice and its role in shifting students towards greater self-authorship and personal commitment (*intuitive call*). This would not address the concept of a motivating disorienting dilemma, but that information might surface through the CLEV as well, or a series of additional questions could be included to capture that information.

The case study in my research was particularly relevant to the heuristic process. Similar follow up case studies could be pulled from the larger phenomenological study. I was able to use the single case study as a snapshot of the results found in the phenomenological data, and that data supported the importance the case study findings. Those findings contributed the missing variables to factor into my question – the importance

of developmental readiness and a motivating disorienting dilemma in order to hear and follow an authentic, intuitive *call*.

Summary

Complicating factors and study limitation do not detract from my findings. Those findings include the importance of including the issues of developmental readiness and disorienting dilemmas in the discourse on the undergraduate exploration of personal quests such as spirituality and intuition *calls*. In fact, the Higher Education Research Institute (2004) study supports the need for including self-exploration into the college experience. Of the 236 diverse schools, with 112,232 students responding, more than three quarters surveyed stated they are looking for encouragement for such self exploration. Other studies indicate successful outcomes where contemplative practice has been incorporated into a college or university (Holland, 2006; Sarath, 2006; Subbiondo, 2005). Spirituality and contemplative practice in higher education are used interchangeably in the literature. The many ways of describing such practices should not interfere with a universal acceptance of its importance to positive outcomes for our students.

This research was driven by a personal recurring life theme about *calls*. As an undergraduate I heard and rejected a *call*. As is the nature of true *calls*, it resurfaced again and again. This research is the result of my immersion in that *call*. I am dedicated to the following of *calls*, to engaging students in practices which might allow them to develop strong internal authorities. The stronger the internal authority, the more likely a *call* will be followed. As to why this matters, Levoy (1997) writes:

Passion is a state of love, and hunger. It is also a state of enthusiasm, which means to be possessed by a god or a goddess, by a Wild Thing. One could be possessed by the god of poetry or the goddess of animals, the god of commerce or the goddess of home

and hearth. If we imagine that calls issue from the gods, then we are as close as we ever get to them – the calls *and* the gods – when we are enthusiastic. We move toward a kind of divine *presence* because, through our passions, we are utterly present. We are utterly charged and focused. We are oblivious, we forget ourselves, our troubles, our day-to-day living-on-Mulberry-Street lives. We hitch ourselves to something bigger. (p. 66)

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Appendixes

Appendix A: Internal Review Board Proposal

IRB use only: ☐ XM ☐ XR ☐ FR ☐ CF ☐ Rev ☐ App ☐ NA #:

Chair Init _____ DF Init _____ Date: _____

2007-2008

Application for Review of Human Subjects Research

Date Submitted : March 25, 2009

Application for: **(X) Exemption from IRB Review** ☐ Expedited Review ☐ Full Review

Lead Researcher *: Name, Address, Phone, E-mail

Jan Wall, 3 Crescent Hill Ave., Arlington, MA 02474

781-646-4952

jwall2@lesley.edu

Faculty Supervisor* (only if student researcher): Name, Address, Phone, E-mail

Anne Pluto, Lesley College, 617-349-8948, apluto@lesley.edu

**Faculty Supervisor is the official Principal Investigator under Federal Regulations*

Investigator(s) status – check all that apply:

☐ Faculty ☐ Staff **(X) Graduate student** ☐ Undergraduate

Title of the Project: ***This is Your Brain on Intuition: Listen***

Proposed Project Dates: ***Summer 2009***

Type of Project: ☐ Faculty research **(X) Thesis/Dissertation** ☐ Independent Study

Other (please describe)

1.1 Briefly describe the purpose of the study: ***To explore the connection of the intellect with the intuition, experientially and through existing research on relevant neuroscience (right/left brain hemisphere activity), on learning and meaning-making for college students.***

1.2 Provide the number of adults, and the number and ages of minors: ***1 Adults***

1.3 Briefly describe the project design (e.g., experimental, ethnographic, etc.): ***Mix of Phenomenological, Case Study, Heuristic Research***

1.4 Indicate whether the study involves any of the following:

(X) Case Study ☐ Experimental intervention ☐ Task performance

☐ Educational tests ☐ Standard psychological tests ☐ Survey or questionnaire

(X) Interviews ☐ Observations **(X) Analysis of existing data**

1.5 How will subjects be recruited? ***Only 1 subject – student in one of my previous classes (Intuition, Imagination & Creativity) who scored exceptionally high on Meyers-Briggs Type Indicator for Intuition, self-identifies as bridging various ways of knowing, and has indicated strong interest in exploring her own meaning-making of the college experience and my research topic. It is highly unlikely that she will be in other classes that I teach.***

1.6 Do subjects risk any stress or harm by participating in this research? If so, why are they necessary. How will they be assessed? What safeguards minimize the risks? ***[It is not necessary to eliminate all risks, only to be clear and explicit about what the risks may be. The IRB is alert to any tendency to suggest that risks are lower than they may actually be.] No stress or harm by participating in this research.***

1.7 Describe the data that will be collected:

Interviews with the student

Reflective journals by student and researcher

Also author of ‘Calling: Finding an Authentic Life’, Gregg Levoy, is willing to share letters he has received from readers that may relate to this topic. All identifying markers will be removed from the letters.

1.8 Describe the steps to be taken to respect subject’s rights and expectations of privacy, confidentiality and anonymity: *The student’s name will be changed, and several identifying factors (age, major, year in school) will be changed as well.*

1.9 Will subjects’ identities or private information be revealed if this study be reported through publication or public presentation? *No*

If this application is seeking an **exemption from IRB Review**, please check the policy in the Faculty Handbook. Please see the worksheet on the criteria for an exemption. If you believe that the proposed research qualifies for an exemption, you may end the application here and submit these two pages to the Committee through the Associate Provost in the Provost’s Office. You will be notified whether your application for exemption has been approved. If it is not approved, you will be asked to complete the remaining sections of this application.

Appendix B: Informed Consent Form

Informed Consent Form

Study Title: *This is Your Brain on Intuition – Listen*

Primary Researcher: Jan Wall

Description of Experiment:

The intention of this research is to explore the use of intuition as a way of knowing. Intuition is being defined as one of the four psychological types identified by Carl Jung – the others being thinking, sensing, and feeling. Both co-researchers will engage with the text, *Callings*, by Greg Levoy and record their objective and subjective impressions in a daily journal and/or directly within the text*. At the end of the study, July 6, 2009, the student (co-researcher) will share her journal with the primary researcher. The student agrees to five to six interviews with the primary researcher to discuss her (the student's) experiences of: (1) engaging with the text, (2) intuition as a way of knowing/learning (as an undergraduate), (2) any shifts or changes noticed as a result of participating in this project, and (4) whatever information seems important to the discussions.

Taped interviews will take place over a period of three months, at a mutually agreed upon time and place. The co-researcher understands she is not required to share her journal or any other information if she chooses not to. She also understands that she may withdraw from the project at any time without any consequences to her. All data collected, including tapes from interviews, will be kept in a secure location (researcher's office).

*Heuristic Research is being considered as methodological approach to this research. Engaging with a text is one approach to the first phase of this research method.

In order to participate in this research study, it is necessary that you give your informed consent.

By signing this informed consent form you are indicating that you understand the nature of the research study and your role in that research and that you agree to participate in the research. Please consider the following points before signing:

- I understand that I am participating in a research project.
- I understand that my participation will be anonymous (that is, my name will not be linked with my data) and that all information I provide will remain confidential. If for some reason I do not wish to remain anonymous, I will specifically authorize the use of material that would identify me as a co-researcher in this project.
- I understand that I will be provided with an explanation of the research in which I participated and be given the name and telephone number of an individual to contact if I have questions about the research. In addition, I understand that I may contact a member of Lesley University's Internal Review Board if I have questions concerning my rights as a participant in this research.
- I understand that participation in research is not required, is voluntary, and that, after the research project has begun, I may refuse to participate further without penalty.
- I understand that there is no known risk/harm involved than that encountered ordinarily in daily life or during performance of routine physical or psychological examinations or tests.
- I understand that I if I have any questions or concerns about the research process, or my involvement in it, I can contact any, or all, of the following:
 - Anne E. Pluto, Ph.D., Supervising Faculty, Lesley University, 33 Mellen Street, Cambridge, MA 02138; apluto@lesley.edu, 617-349-8948
 - Gene Diaz, Ph.D., Co-Chair of Internal Review Board, Lesley University, 29 Everett Street, Cambridge, MA 02138, gdiaz@lesley.edu, 617-349-8426
 - William Stokes, Ed.D., Co-Chair of Internal Review Board, Lesley University, School of Education, Cambridge, MA 02138, wstokes@lesley.edu, 617-349-8408
 - Nathaniel Mays, Ph.D., Dean of Student Life and Academic Development, Lesley University, 23 Mellen Street, Cambridge, MA; nmays@lesley.edu, 617-349-8408

By signing this form I am stating that I am over 18 years of age, and that I understand the above information and consent to participate in this study being conducted.

Signature: _____ **Today's Date:** _____
(of Co-Researcher)

Print your First Name: _____ **Print your Last Name:** _____

Signature: _____ **Today's Date:** _____
(of Researcher)

Print your First Name: _____ **Print your Last Name:** _____

Appendix C: Internal Review Board Letter of Approval



29 Everett Street
Cambridge, MA 02138
Tel 617 349 8408
Fax 617 349 8599
wstokes@lesley.edu

Institutional Review Board

May 4, 2009

Office of the Provost

To: **Jan Wall**

From: Gene Diaz, Co-chair Lesley IRB *Gene Diaz*

RE: Application for Exemption: *This is Your Brain on Intuition: Listen*

IRB Number: 4808

This memo is written on behalf of the Lesley University IRB to inform you that your application for exemption has been approved. Your project poses no more than minimal risk to participants.

If at any point you decide to amend your project, e.g., modification in design or in the selection of subjects, you will need to file an amendment with the IRB and suspend further data collection until approval is renewed.

If you experience any unexpected "adverse events" during your project you must inform the IRB as soon as possible, and suspend the project until the matter is resolved.

Your work qualifies for exemption under provision:

46.101 (b) (2) Research involving the use of ... survey procedures, interview procedures or observation of public behavior, unless:

(i) information obtained is recorded in such a manner that **human subjects can be identified**, directly or through identifiers linked to the subjects; and

(ii) any disclosure of the human subjects' responses outside the research **could reasonably place the subjects at risk** of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Date of IRB Approval: May 4, 2009

Appendix D: KT's Creative Synthesis

KT

June 9, 2010

The Harvest of the Sting

The Harvest of the Sting

The cohesion that exists within a person is most often never thought about. This is not to suggest that human existence is in perfect order and harmony-but that is not until a shattering of existence takes place that one then discovers "ah yes there was a cohesion, a connective thread, that enabled me to go about my day." One discovers that there was a silent, unnoticed whole that could be flexible and relative to diversity in context as well as a solid sameness that was conducive to relationships, meaning making, and the opportunity for empathy. However, it is simply expected, even demanded by those who know not a testing of this kind of existence. It is the platform from which self definition springs from, it is the reality of everyday consciousness.

But what happens when there does spring a shattering? When the cohesion rips open like a thin piece of skin and out spills the raw and slimy organs; a new vision of humanity and immortality at once. What does one do as they spill over vulnerability and despair that others either watch their step for or get stuck in. What does one do to reunite unity, albeit a new form?

For me-I write poems.

Shedding

In the dim arena of matter-
Couches, lamps, tables
Lies a strip of the world

A room that carries weight
Pounds of flesh, bone, cries, laughs,
And stillness
Silence
Nothing
Past is pulled forth with pictures and binds the
Unity of a family

When his chest expands it ticks like a clock
And sweet nectar air releases into the void
I swallow the vitality and store it for later-
When I am by myself, peeling back another day

Television

Glaring and deceptive it mirrors the defenses of sadness and hunger for humor.
The colors dance outward at silence, coughing, blinking in waiting time
I will come to you if you promise what I need. Ok, I'll stay here. I can feel the sweet
numbing and plunge so willingly I scare myself.

Sun

I feel soft and fluid
I swim outside and am brave as a warrior
Defeat the worry, stomp the weakness
I look in the mirror and greet a child, unsullied and milky
There is a full house today and the candle is dense and warm
All present and no conflict
From these eyes

Mentor

She steadies the nerves, anxieties, and sadness within me. A wise and gentle protector she holds the space to where I need and even stretches it out when she knows I am ready. She will glide over the rubble and even dance between it. We see saw through contradictions and float on emptiness. I felt myself revived as the clearness of day entered the room. She helped me to reshape, a beautiful kind of broken.

Appendix E: Wall's Creative Synthesis

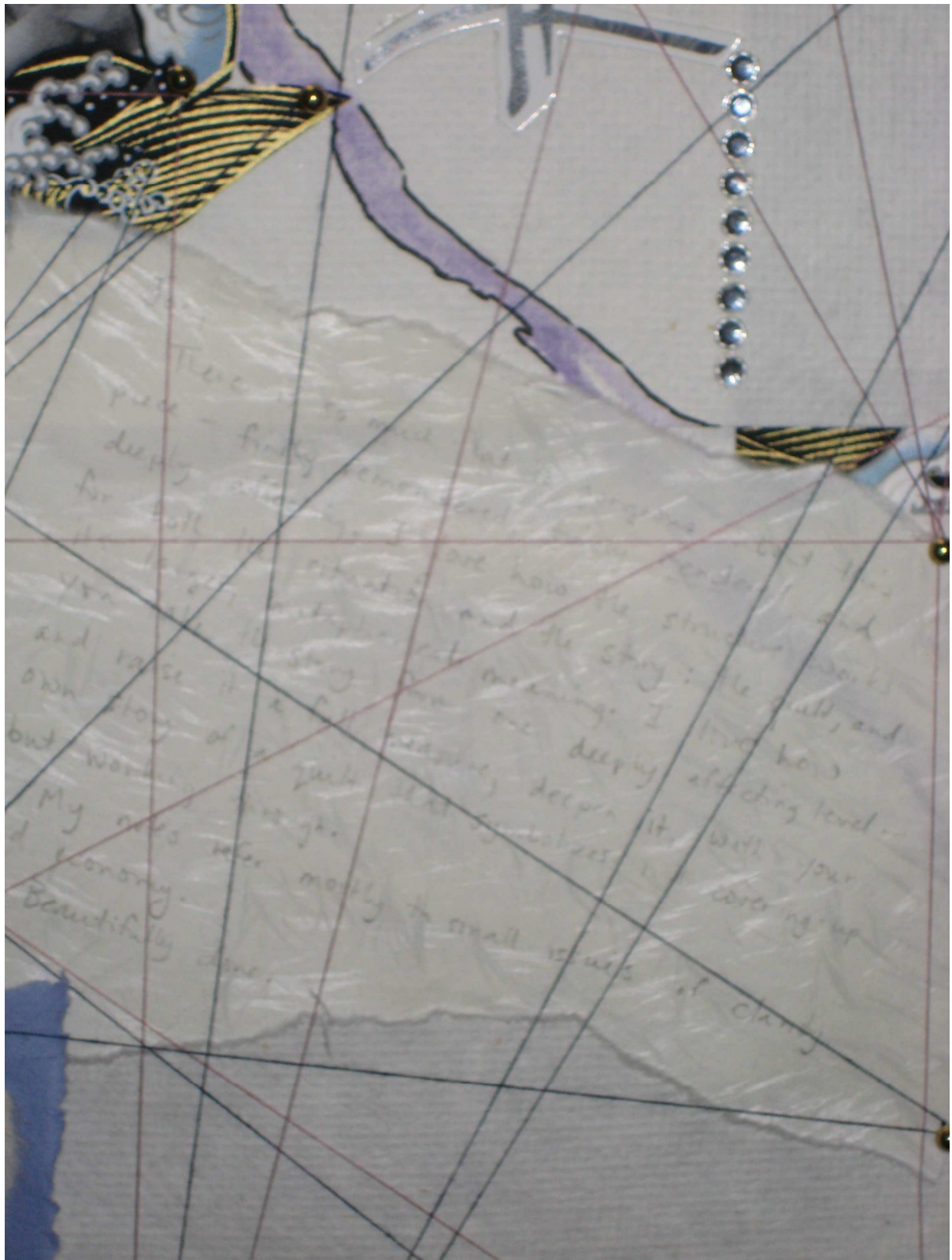
I created a collage. The first image (p. 135) is of the entire collage. Subsequent images (pp. 136-139) show details.

By A Thread



By A Thread: Detail #1

By A Thread: Detail #2.

By A Thread: Detail #3

By A Thread: Detail #4